DOCUMENT RESUME

ED 187 855 CE 024 709

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TITLE CIS Implementation Handbook.
INSTITUTION Oregon Univ., Eugene. Career Information System.
PUB DATE Sep 78
NOTE 295p.; For related documents see CE 024 707-708 and ED 151 514.
AVAILABLE FROM Oregon Career Information System, 247 Hendricks Hall, University of Oregon, Eugene, OR 97403 ($11.00)

EDRS PRICE MF01/PC12 Plus Postage.
DESCRIPTORS Career Counseling; *Career Education; *Career Exploration; *Career Guidance; *Computer Oriented Programs; Cooperative Programs; Coordination; Educational Technology; Guidance Centers; *Information Services; *Information Systems; Learning Activities; Occupational Information; Postsecondary Education; Program Descriptions; Program Implementation; Resource Materials; Secondary Education; Vocational Interests
IDENTIFIERS Career Information System; Oregon; QUEST Process

ABSTRACT

This handbook for school and agency staff presents information on implementing a Career Information System (CIS). Section 1 describes the content, format, and use of CIS information files. Each type of file is discussed individually and sample printouts are included. Section 2 provides materials on QUEST, the twenty-one question process by which the user constructs an individual profile by expressing work/job preferences that are matched to an individualized list of occupations. Section 3 concerns these topics regarding site coordination: standards for CIS use, publicizing CIS, involving faculty, CIS and the guidance process, utilizing paraprofessionals and student aides, career resource centers, CIS statistical package, and troubleshooting. Additional resources provided in section 4 include a glossary and resource lists compiled by Seattle Public Schools, including student reference materials, reference books for students, professional reference, and kits and sets. The final section, amounting to over one-half of the manual, consists of learning activities developed by users or site coordinators for implementing CIS in counseling centers and classrooms. Activities are grouped into career guidance and the subject matter areas of language arts, social studies, science, mathematics, physical education, art, personal finance, business, industrial arts, health, and food services. (YLB)

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ED187855

CIS IMPLEMENTATION HANDBOOK

September, 1978

Career Information System
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403

CE 024 709

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

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PREFACE

Programs don't implement themselves: they need explanation; they require physical facilities; they involve orientation and training of staff; they rely on feedback from the field; and they need management and evaluation. A comprehensive career information system is a relatively new idea in most schools and agencies; consequently, a management, in-service training and feedback system is needed. This handbook serves as a tool to assist school and agency staff in implementing CIS.

The first four sections of the handbook attempt to reflect what is known about the System and what has "worked" in various educational and agency settings. The last section consists of learning activities from users for implementing the System in counseling centers and classrooms. We encourage you to send your ideas for similar instructional materials to CIS (Office of the Director; 247 Hendricks Hall; University of Oregon; Eugene, Oregon 97403) so they can be included.

We have chosen a loose leaf format so that site coordinators can conveniently add new material. Coordinators are encouraged to use the handbook as a central place to store their CIS related material. CIS hopes to provide periodic updates to this manual as we identify new implementation strategies.

Many individuals and organizations have contributed to this handbook. Many of the ideas are revisions and updates of an earlier Implementation Handbook developed by John Clyde. In addition to providing the structure for this current edition, John also contributed his experience and support in a way that makes writing and working an enjoyable endeavor. The Implementation Handbooks for the states of Colorado and Minnesota served as useful sources for many ideas. Recognition must also go to Carla Bacon and Jody Arnold for their patience and cooperation in the editing and typing of the manuscript.

Jeff Wiles
Naomi Stewart

INTRODUCTION

Over the past eight years CIS has come to mean many different things to many different people. Before you begin to explore this handbook, take a few moments to peruse the following facts and figures on CIS -- this will insure that you begin with a clear picture of the Career Information System.

1. CIS is an Oregon public interagency cooperative whose purpose is to improve career and educational choice. It has a Board of Directors consisting of representatives from local school districts, educational service districts, community colleges, state social service agencies, Oregon State System of Higher Education, and Oregon Department of Education. Its offices are located at the University of Oregon where a staff of nineteen work in the areas of information analysis, user services, computer management, fiscal management, system enhancements, and center management.

2. CIS has developed an occupational and educational information delivery system containing Oregon information on 240 occupations, 130 programs of study and training and approximately 200 post-secondary schools (including public and private colleges, community colleges, and private vocational schools).

3. CIS is used by approximately 325 junior and senior high schools, twelve community colleges, Vocational Rehabilitation Division, CETA programs, Displaced Homemakers Center, Workmens Compensation Center, Correctional Institutions, Umatilla Indian Reservation and other social agencies. It is estimated that 220,000 Oregonians will use CIS during 1978-79.

4. CIS field tests have demonstrated the following:

   a. 70% of the students who used CIS said that the occupational titles which the computer listed for them introduced some new occupations that they would seriously consider for future work.
   b. Students who used the system consistently showed that they know more about job prospects than those who did not use CIS.
   c. Students' usage of CIS averaged 2.3 times per year.
   d. 84% of the students said that they were satisfied with the system and 77% had recommended it to a friend.

5. Parts of the Oregon CIS are being replicated in at least twelve other states.

6. CIS is <u>not</u> a total career guidance system. While the system is designed for independent client use, success of the system is enhanced when counselors and teachers assist the user in interpreting information, clarifying specific needs, and planning future steps.

CIS INFORMATION FILES

It is difficult to locate a single source of detailed and accurate information that relates career opportunities to educational programs and the schools that offer them. Current information about occupations, postsecondary institutions, and programs of study and training is usually fragmented and scattered. Occupational information is very seldom prepared for a user's specific locality or written in a manner which can be easily understood. The best available publications on post-secondary education lack some of the information which potential post-secondary educational consumers seem to demand, and they do little to relate career opportunities to the educational programs offered in the various educational institutions.

Even if the information itself is correct, it still must be delivered in an attractive, motivational manner which can be updated easily. The Career Information System's information files are a direct response to the need for a single, efficient informational source relating career opportunities and decisions with postsecondary educational opportunities and choices. CIS' direct information access system permits a user to obtain any of the system's occupational or educational information in any desired sequence.

The purpose of this section is to familiarize counselors, paraprofessionals, and CIS coordinators with the content and format of the CIS files. Each file is discussed individually and sample printouts are included for your reference.

File Name: DESCRIPTION

Access Command: DESC _(occ #)_

File Features:

The occupational description for each occupation follows a standard format which incorporates the following topics: Description of Duties, Aptitudes, Work Setting, Hiring Practices, Current Employment, Wages, and Outlook.

The beginning section provides a short summary of the general tasks performed by workers in this occupation. This information has been gathered from a variety of sources and validated by knowledgeable people associated with the career. A list of specialties within the occupation and related CIS occupations are also included for most occupations.

APTITUDES. This section lists the abilities and interests required for successful performance on the job. This information is based on field observations by occupational analysts.

WORK SETTING. This section of the description states whether the work is performed indoors or outdoors, the degree of physical exertion involved, exposure to elements and/or potentially dangerous surroundings, and any other information about working conditions that may be pertinent. Types of employers are also included.

HIRING PRACTICES. Lists requirements such as passing an exam, obtaining a license or completing a training program. The occupational preparation file contains additional training information.

?DESC 4126 WILL
4126 FISH AND WILDLIFE SPECIALISTS

FISH AND WILDLIFE SPECIALISTS WORK WITH SUCH NATURAL RESOURCES AS SOIL, WATER, PLANTS & ANIMALS TO PRODUCE AN ENVIRONMENT THAT SUPPORTS ANIMAL LIFE. THESE SPECIALISTS MANIPULATE NATURAL RESOURCES AND WILDLIFE FOR THE OVERALL BEST INTERESTS OF MAN, WHETHER THESE BE ECONOMIC, COMMERCIAL, RECREATIONAL OR AESTHETIC. THEY RESEARCH AND APPLY SCIENTIFIC SOLUTIONS TO PROBLEMS BY SURVEYING AND RESTORING MARSHES, LAKES, STREAMS AND SURROUNDING AREAS; MANAGE WILDLIFE REFUGES AND GAME AREAS; ENFORCE CONSERVATION REGULATIONS AND EDUCATE OTHERS ABOUT WILDLIFE CONSERVATION. SOME FISHERY SPECIALISTS WORK IN ARTIFICIAL PROPAGATION OF FISHES AND IN WATER QUALITY ASSESSMENT AND CONTROL. IN THE PACIFIC NORTHWEST, MANY FIELD MANAGEMENT BIOLOGISTS MONITOR THE TIMBER INDUSTRY; KNOWLEDGE IN TIMBER HARVESTING TECHNIQUES AND RELATED PROBLEMS IS BECOMING ESSENTIAL FOR SUCH POSITIONS. SPECIALTIES: FISH & GAME WARDENS (DOT# 379.167-010), FISH HATCHERY MANAGERS (180.167-030), FISH HATCHERY WORKERS (446.684-010). CIS RELATED OCCUPATIONS: FORESTERS (SEE DESC 4124), ECOLOGISTS (2318).
---APTITUDES: ABILITY TO WORK ALONE AS WELL AS WITH OTHERS; SELF-DISCIPLINE; AND FOR THOSE INTERESTED IN RESEARCH, A HIGH DEGREE OF ACADEMIC ABILITY. GOOD HEALTH IS IMPERATIVE FOR MANY ASSIGNMENTS.
---WORK SETTING: WORK BOTH INDOORS & OUT. WORKING CONDITIONS VARY WIDELY; MAY WORK AT A PERMANENT INSTALLATION SUCH AS A FISH HATCHERY OR IN REMOTE AREAS LACKING ANY FACILITIES. FIELD WORK MAY REQUIRE WORKING IRREGULAR HOURS. BEGINNING POSITIONS MAY INVOLVE FREQUENT RELOCATING. EMPLOYERS: FEDERAL & STATE AGENCIES GOVERNING WILDLIFE, CONSERVATION, PARKS & CONSULTING FIRMS.
---HIRING PRACTICES: A 4-YEAR COLLEGE DEGREE IN PHYSICAL OR BIOLOGICAL SCIENCES, OR IN FISH & WILDLIFE MANAGEMENT OR RESEARCH. SOME EMPLOYERS REPORT THAT A MASTER'S DEGREE IS BECOMING INCREASINGLY IMPORTANT IN OBTAINING A JOB. TRAINING: SEE PREP 4126.

CURRENT EMPLOYMENT. Lists the number employed in the occupation in the state or, when significant localized information is available, in a particular region of the state.

WAGES. Provides users with an indication of the salary or wage they can expect to earn in an occupation. Average entry wages are reported (i.e., wages for a person who has no previous experience in the field). This information is localized when it varies from the average statewide entry rate.

OUTLOOK. The outlook section of the description attempts to present to the user:

1. The projected employment outlook for that occupation;
2. Factors which will influence that projected outlook; and
3. Current trends which characterize the employment practices of employers who hire persons in the occupation.

Whenever possible, the employment outlook section presents information on a local level. When current, accurate local employment projections are not available, statewide information is given. In occupations with national labor markets, national data are presented.

Employment outlook is described in terms of the demand/supply relationship, and whether this relationship is characterized by a surplus, shortage, or balance. These terms are defined as follows:

Surplus:	A demand/supply relationship where there are expected to be more people seeking jobs than there are openings.
Shortage:	Indicates a relationship where there are expected to be more new jobs than persons to fill them.
Balance:	Indicates a relationship where the number of new jobs is expected to about equal the number of persons seeking jobs.

No one can state without qualification what the future demand/supply relationship will be; too many variables affect that relationship. These statements are based on the best information currently available. Outlook statements are updated as new evidence becomes available.

Localized Information. Different geographic areas often have different current employment, wages and outlook. Each occupation is researched to determine what, if any, differences exist between the information in specific areas and statewide information. CIS presently localizes information for the following six areas of the state:

Area	Code Word
Portland Metropolitan Area	PORT
Mid-Willamette Valley	WILL
Lane County	LANE
Coos and Curry Counties	COOS
Southern Oregon	SO
Eastern Oregon	EAST

Of all the information files contained in the system, the occupational descriptions have proved to be the most popular and valuable to most users.

Suggested Uses:

The description file provides a meaningful and realistic first step in exploring an occupation. Users should be encouraged to access as many occupational descriptions as they find interesting.

```
---CURRENT EMPLOYMENT:  THIS IS A SMALL OCCUPATION WITH AROUND
750 IN OREGON; MOST ARE FISHERY SPECIALISTS WHO ARE CONCENTRATED
IN A FEW COUNTIES ALONG THE COAST, COLUMBIA RIVER, & WILLAMETTE
VALLEY.
---WAGES:  AVERAGE ENTRY WAGE IS AROUND $800/MO. WITH AN AVERAGE
MAXIMUM OF AROUND $1,000/MO.
---OUTLOOK:  SURPLUS OF APPLICANTS.  THE OUTLOOK DEPENDS ON THE
AVAILABILITY OF PUBLIC FUNDS AND REPLACEMENT OF PERSONS WHO
LEAVE THEIR JOBS.  STUDIES INDICATE THESE POSITIONS ARE PREDOM-
INANTLY GOVT.-FUNDED & WITHIN THE PAST 4 YEARS, ALLOCATIONS HAVE
BEEN SIGNIFICANTLY REDUCED.  PRESENTLY, THIS TREND IS EXPECTED
TO CONTINUE, THEREFORE OPENINGS WILL RESULT FROM VACANCIES
CAUSED BY THOSE WHO LEAVE THE FIELD.  HOWEVER, TURNOVER RATE IS
VERY LOW DUE TO THE PRESENT JOB MARKET AND LOW FUNDING LEVELS.
COMPETITION IS KEEN AS APPLICANTS WITH GRADUATE DEGREES ARE VYING
FOR ENTRY POSITIONS TOO.  SOME HAVE SOUGHT ALTERNATIVE CAREERS
SUCH AS TEACHING BIOLOGY OR PHYSICAL SCIENCE, OR HAVE STRENGTH-
ENED THEIR BACKGROUND WITH ADDITIONAL COURSES IN WATER QUALITY
CONTROL WITH HOPES OF WORKING IN ENVIRONMENTAL CONTROL PROGRAMS.
A GREATER DEMAND IS EXPECTED FROM PRIVATE EMPLOYERS ENGAGED IN
AQUACULTURE OR FISH FARMING.


FOR WAYS TO PREPARE, TYPE IN:  PREP  4126
FOR BOOKS, TYPE IN:  BIB  4126
FOR AN OCCUPATIONAL CLUB, TYPE IN:  CLUBS  4126
CIS/MID-WILLAMETTE VALLEY/JUL 19 1978
```

File Name: CLUSTER DESCRIPTION

Access Command: DESC __ __ (first two digits of occ #)

File Features:

The standard format of this file consists of a brief description of duties common to occupations within the same cluster, and a list of occupations within the same cluster. Before each occupational title is the CIS four digit occupational code, used in exploring a career further.

Our 240 occupations are divided into 25 clusters.

Suggested Uses:

The cluster description provides users with an opportunity to familiarize themselves with occupations related to their primary area of interest. This file also introduces users to the cluster concept and idea of occupations sharing related tasks.

```
?DESC 41
 4100  AGRICULTURE & FORESTRY OCCS:

AGRICULTURE & FORESTRY WORKERS PLAN AND GET INCREASED
PRODUCTION FROM FARMS, GARDENS, FORESTS AND STREAMS.  YOU CAN
LEARN MORE ABOUT THIS CLUSTER BY LOOKING AT THE DESCRIPTIONS
FOR THESE OCCUPATIONS:

4124  FORESTERS
4126  FISH AND WILDLIFE SPECIALISTS
4128  FORESTRY TECHNICIANS
4144  GROUNDSKEEPERS & GARDENERS
4146  FLORAL DESIGNERS
4164  FARMERS AND RANCHERS
4166  FARM AND RANCH HANDS
4168  SEASONAL FARM LABORERS
4174  ANIMAL CARETAKERS


FOR WAYS TO PREPARE, TYPE IN:  PREP  4100
CIS/MID-WILLAMETTE VALLEY/JUL 19 1978
```

File Name: ATTRIBUTE

Access Command: ATTR __(occ #)__

File Features:

This file lists the attributes for which the occupation is coded. Attributes correspond to the questionnaire responses; those listed are all the possible responses for which the occupation will remain on the user's QUEST list.

Suggested Uses:

The attributes for a particular occupation could be studied to find out characteristics of the job. For example, if "NLO" is not listed for question #13, Use of Numbers, you would know that a person in the job would need to be able to use numbers above the low level.

This file can show you what responses will keep an occupation on your list.

NOTE: Users may need assistance in interpreting the Attribute File.

```
?ATTR 4126
 4126    FISH AND WILDLIFE SPECIALISTS

01=YES    01=NO     01=NP
02=YES    02=NO     02=NP
03=YES    03=NP
04=YES    04=NP
05=YES    05=NO     05=NP
06=YES    06=NO     06=NP
07=YES    07=NO     07=NP
08=YES    08=NO     08=NP
09=ELO    09=EM     09=EHI    09=ENS
10=FLO    10=FM     10=FHI    10=FNS
11=CLO    11=CM     11=CHI    11=CNS
12=VM     12=VHI    12=VNS
13=NM     13=NHI    13=NNS
14=GM     14=GHI    14=GNS
15=DLO    15=DM     15=DHI    15=DNS
16=MED    16=YES    16=NP
17=FOUR   17=ANY
18=NI     18=MIN    18=700
19=IN     19=OUT    19=NP
20=LM     20=SC     20=RUR    20=LMSC   20=SCR    20=NP
21=COOS   21=LANE   21=PORT   21=EAST   21=WILL   21=SO     21=ORE
21=NW     21=US
```

File Name: PREPARATION

Access Command: PREP (occ #)

File Features:

This file describes how people prepare for work in an occupation. The preparation statement is divided into four sections: Skills, Licensing, Preparation, and Tips.

SKILLS. This section defines the skills, knowledge, or abilities a person should acquire if he or she is interested in this occupation.

LICENSING. If the state requires that a person be licensed before entering the occupation, licensing requirements are listed.

PREPARATION. A description of the ways people prepare for the occupation. Preparation may include schooling, on-the-job training, or work experience. The length of the training is included. The user is also referred to appropriate Program of Study and Training files in the System.

TIPS. This section provides users with constructive suggestions for obtaining employment in the occupation.

Suggested Uses:

This file gives the user a realistic statement of the preparation methods for a career. This information may be helpful in evaluating career options as well as planning education and training programs.

```
WHAT NEXT?
?PREP 4126
 4126  FISH AND WILDLIFE SPECIALISTS

---SKILLS: TECHNICAL REPORT WRITING, PUBLIC SPEAKING ABILITY,
KNOWLEDGE OF SAMPLING TECHNIQUES, AND INTERVIEWING SKILLS.
---PREPARATION: A 4-YEAR COLLEGE DEGREE IN PHYSICAL OR BIOLOG-
ICAL SCIENCES OR FISHERIES & WILDLIFE SCIENCES IS NEEDED TO BE
A FISH & WILDLIFE SPECIALIST. A GRADUATE DEGREE IS USUALLY
NEEDED FOR TEACHING & RESEARCH POSITIONS & MASTER'S DEGREE OR A
BACHELOR'S DEGREE PLUS EXPERIENCE ARE BECOMING MORE COMMON AMONG
THOSE ENTERING THE FIELD. THOSE EMPLOYED WITH THE GOVERNMENT
MUST PASS A CIVIL SERVICE EXAM & BE PLACED ON A WAITING LIST,
THEN ANNOUNCEMENTS OF OPENINGS ARE SENT.
   RELATED EDUCATIONAL PROGRAMS: FISHERIES & WILDLIFE SCIENCES
(SEE PROG 067), BIOLOGY (131).
---TIPS: EMPLOYERS REPORT THAT BACKGROUND IN STATISTICS, COM-
PUTER PROGRAMMING, COMMUNICATIONS, ECONOMICS, AQUACULTURE, FISH
PROCESSING, MARKETING & ENGINEERING MAY BE HELPFUL. JOB EX-
PERIENCE & SUMMER EMPLOYMENT ARE HIGHLY DESIROUS.

WHAT NEXT?
```

File Name: CLUSTER PREPARATION

Access Command: PREP __ __ (first two digits of occ #)

File Features:

This file features a list of high school courses which may be found helpful in preparing for a career within a cluster. There is also a short description of duties that are common to occupations within the cluster.

Suggested Uses:

This file is particularly helpful in curriculum planning at the junior and senior high school level. It also has the positive effect of adding relevancy to high school coursework.

```
?PREP 41
 4100  AGRICULTURE & FORESTRY OCCS:

PERSONS IN AGRICULTURE & FORESTRY OCCUPATIONS PLAN & WORK
TO GET INCREASED PRODUCTION FROM FARMS, GARDENS, FORESTS &
STREAMS.  CAREER PREPARATION COULD INCLUDE THE FOLLOWING
HIGH SCHOOL SUBJECTS:
     AGRICULTURE                DRAFTING
     ARITHMETIC                 EARTH SCIENCE
     BIOLOGY                    FORESTRY & FOREST PRODUCTS
     BUILDING CONSTRUCTION
SOME HIGH SCHOOLS OFFER SPECIAL COURSES IN THE AGRICULTURE
CLUSTER.  ON THE OTHER HAND, STUDENTS MAY NEED TO CONSIDER
POST-SECONDARY AND/OR ON-THE-JOB TRAINING.

YOU CAN LEARN MORE BY LOOKING AT THE DESCRIPTIONS FOR THESE
OCCUPATIONS:

4124  FORESTERS
4126  FISH AND WILDLIFE SPECIALISTS
4128  FORESTRY TECHNICIANS
4144  GROUNDSKEEPERS & GARDENERS
4146  FLORAL DESIGNERS
4164  FARMERS AND RANCHERS
4166  FARM AND RANCH HANDS
4168  SEASONAL FARM LABORERS
4174  ANIMAL CARETAKERS

WHAT NEXT?
```

File Name: BIBLIOGRAPHY

Access Command: BIB __(occ #)__

File Features:

The Bibliography lists publications for further exploration and research. Users are referred to occupational books, pamphlets and other materials which contain information on the occupation. It is advisable for career reference materials to be easily accessible to the user.

```
*BIB 4126

 4126    FISH AND WILDLIFE SPECIALISTS
RELATED PUBLICATION(S):
'OCCUPATIONAL OUTLOOK HANDBOOK' (1978-79 ED.), PP. 334-336.

IF YOU WANT TO ORDER THE OCCUPATIONAL OUTLOOK HANDBOOK, SEND
$8.00 TO SUPT. OF DOCUMENTS, U.S. DEPT. OF LABOR, BOX 36017,
SAN FRANCISCO, CA 97102.  ASK FOR BULLETIN #1955.
```

File Name: SUMMER JOB FILE

Access Command: EMPL 1000 or EMPLY 1000

File Features:

The purpose of this file is to aid students in their search for summer jobs. The file is divided into three sections: Hints for Your Job Search, Books About Summer Jobs in the U.S., and Books About Jobs Overseas.

Suggested Uses:

Post a complete printout of this file close to the terminal for student reference. You may wish to order the books listed and have them available for student use. The location of these books could be marked on the printout.

If a person is interested in one section of the file, he or she may obtain a printout of that particular section, skipping sections by punching the return key when the terminal pauses.

```
?EMPLY 1000
 1000

                    SUMMER WORK INFORMATION

THE PURPOSE OF THE FOLLOWING INFORMATION IS TO AID STUDENTS IN
THEIR SEARCH FOR SUMMER JOBS.  BECAUSE SUMMER JOBS ARE OFTEN HARD
TO GET, THESE FEW, GENERAL TIPS CAN ONLY BE A STARTING POINT.
MAYBE THIS INFORMATION WILL HELP YOU TO THINK OF MORE JOB IDEAS.

THERE ARE THREE MAIN PARTS:  HINTS FOR YOUR JOB SEARCH, BOOKS
ABOUT SUMMER JOBS IN THE U.S., AND BOOKS ABOUT JOBS OVERSEAS.


                    HINTS FOR YOUR JOB SEARCH

YOU CAN SKIP A SECTION BY PUNCHING THE 'RETURN' KEY WHEN THE
TERMINAL PAUSES.

JOB SEARCH -- START YOUR JOB SEARCH EARLY.  SOME EMPLOYERS START
HIRING AS EARLY AS JANUARY AND FEBRUARY.  FOR EXAMPLE, APPLICA-
TIONS FOR SUMMER JOBS WITH THE FEDERAL GOVERNMENT SHOULD BE FILED
EARLY.  FOR INFORMATION AND APPLICATION FORMS, WRITE THE U.S.
CIVIL SERVICE COMMISSION, 1220 S.W. THIRD ST., PORTLAND, 97204;
OR CALL TOLL FREE:  800-452-4910.  QUESTIONS ABOUT SUMMER JOBS
WITH THE POSTAL SERVICE SHOULD BE SHOULD BE ASKED AT THE POST
OFFICE WHERE EMPLOYMENT IS WANTED.
-
WATCH YOUR SCHOOL'S BULLETIN BOARDS WHERE LOCAL JOB OPENINGS MAY
BE POSTED.  IN ADDITION, ANNOUNCEMENTS MAY BE POSTED ABOUT
SCHOLARSHIPS GIVEN BY ORGANIZATIONS FOR SUMMER STUDY IN FOREIGN
COUNTRIES.
-
```

File Name: VISIT

Access Command: VISIT __(occ #)__ (area code)

File Features:

The primary function of the VISIT file is to provide personal contact between the user and a person who is working in a particular occupation, thus giving the user an opportunity for discussion of occupations and possible observation of work sites.

'Visits' may take the form of 1/2 to 1 hour individual interviews or 2 to 3 hour work site observations. Some VISIT contact people have also volunteered to speak to classes or to lead field trips.

VISIT files are presently available for Lane County and Southern Oregon (Douglas County) only. The information is developed and updated by community resource staff members at Lane County Education Service District, Douglas County Education Service District and Umpqua Community College.

```
?VISIT 4126 PORT
 4126  FISH AND WILDLIFE SPECIALISTS

THERE IS NO VISIT INFORMATION AVAILABLE FOR THIS OCCUPATION.
FOR A LIST OF AVAILABLE INFORMATION, TYPE IN:  INFO  4126

?VISIT 2318 LANE
 2318  ECOLOGISTS

PERSON TO CONTACT:              FIRM NAME:
VERN ADKISON                    LANE AIR POLLUTION AUTHORITY
DIR. AIR POLLUTION              16 OAKWAY MALL
PHONE:  686-7618                EUGENE
SPECIAL INSTRUCTIONS: CALL AHEAD & MAKE AN APPOINTMENT
WILL ALSO TALK TO GROUPS IN LANE COUNTY

PERSON TO CONTACT:              FIRM NAME:
EDMUND P. HARSHMAN              U.S. FOREST SERVICE
FOREST ECOLOGIST                210 E. 11TH AVE.
PHONE:  687-6576                EUGENE
SPECIAL INSTRUCTIONS: CALL ABOVE NUMBER AND LEAVE MESSAGE
WILL ALSO TALK TO GROUPS IN EUGENE/SPFLD & EASTERN LANE CO.


YOU MAY CONTACT ANY PERSON ON THE VISIT LIST.  ALL HAVE
VOLUNTEERED TO DISCUSS THEIR OCCUPATIONS AND MAY BE ABLE
TO SHOW YOU WHERE THEY WORK.  (THIS IS NOT A REFERRAL TO A
JOB INTERVIEW).

IF YOU WANT SOME GOOD QUESTIONS TO ASK, TYPE:  VISIT 1000
```

File Name: CLUBS

Access Command: CLUBS __(occ #)__ (area code)

File Features:

Several clubs in Oregon offer a variety of career experience programs in which individuals may participate. The CLUBS file lists these programs by region, including the sponsor, the name, address and telephone number of a contact person, and a brief description of the Club's activities.

Most of the clubs listed involve actual on-the-job related experiences, and for this reason are limited to users over 14 years old or at least in the ninth grade.

```
?CLUBS 4126
 4126  FISH AND WILDLIFE SPECIALISTS

EXPLORER POST #115                    SILVERTON
SPONSORED BY SILVERTON KIWANIS
CONTACT:  RON ALLEN                   PHONE:  873-6715
THIS POST IS INTERESTED IN FISH & GAME MANAGEMENT AND WILDERNESS
SURVIVAL.

FUTURE FARMERS OF AMERICA (FFA)              PHONE:  378-3594
CONTACT:  STATE FFA ADVISOR, OREGON DEPT. OF EDUCATION
          942 LANCASTER DRIVE N.E., SALEM, OR  97310
THROUGH FFA, STUDENTS LEARN ABOUT THE WORK OF A FISH & WILDLIFE
SPECIALIST BY PARTICIPATING IN CLASSROOM & CIVIC PROJECTS,
MEETING PEOPLE EMPLOYED IN THE OCCUPATION, AND COMPETING IN
LEADERSHIP & OCCUPATIONAL SKILLS EVENTS.


CALL THE CONTACT PERSON FOR INFORMATION ON MEMBERSHIP COSTS,
SPECIAL REQUIREMENTS, MEETING TIME AND DATES.
```

File Name: PROGRAMS OF STUDY AND TRAINING

Access Command: PROG __ __ __ (3-digit Program #)

File Features:

The program file provides information for 130 kinds of education and training programs in the state.

Each program file is divided into three topics: a description of the program, a list of schools offering the program, and a list of schools offering acceptable transfer programs.

DESCRIPTION. This section contains a rather complete statement about the program's length, skills necessary to be successful in the program, coursework to be completed, training programs that are closely related, and CIS occupations that are related. In some cases, tips relating to admissibility to a specific school's program and special costs are also listed.

```
?PROG 071
071     FISHERIES & WILDLIFE SCIENCES

DO YOU WANT TO SEE A DESCRIPTION OF THE PROGRAM?  (TYPE IN: YES OR NO)
?YES

     PROGRAMS IN FISHERIES & WILDLIFE SCIENCE INCLUDE THE
STUDY OF CONSERVATION TECHNIQUES & LAND & WATER USE MANAGE-
MENT IN FISHERIES & WILDLIFE AREAS.  AVAILABLE BACHELOR'S,
MASTER'S & DOCTORAL DEGREE PROGRAMS INTEND TO PREPARE PEOPLE AS
BIOLOGISTS & ADMINISTRATORS IN FISH & WILDLIFE AGENCIES & RELATED
INDUSTRIES (SEE DESC 4126).  TWO-YEAR COMMUNITY COLLEGE
PROGRAMS INTEND TO PREPARE PEOPLE TO WORK IN FISH HATCHERIES
OR AS FIELD TECHNICIANS.
     COURSEWORK:  VARIES EXTENSIVELY IN EACH PROGRAM.  SEE
BELOW FOR SOME OF THE DIFFERENCES & CONSULT COLLEGE CATALOGS
FOR COMPLETE DESCRIPTIONS OF CURRICULUM.
     RELATED PROGRAMS:  072 MARINE TECHNOLOGY (FOR COMMER-
CIAL FISHING PROGRAMS); 061 AGRICULTURE; 068 FORESTRY;
528 OCEANOGRAPHY.
```

Suggested Uses:

Acquaints the user with the scope of work involved in completing a course of study, and where that course of study may lead him or her.

SCHOOLS. Lists all schools in the state offering complete programs in a particular field. The five-digit number preceding the school name is the CIS code used to obtain detailed and comparative information on the school. This section names the degrees offered by each institution, their length, cost (in some instances) and any special costs or requirements.

If the list of schools is long, it is divided into sections by area. Computer users may skip sections of the printout by hitting the return key during the pause which follows each area heading.

```
DO YOU WANT A LIST OF SCHOOLS? (TYPE IN 'YES' OR 'NO').
?YES
SCHOOLS:

- - - - - 22709 MT. HOOD COMMUNITY COLLEGE - GRESHAM:
'FISHERIES TECHNOLOGY': 2-YEAR ASSOCIATE DEGREE PROGRAM
  EMPHASIZES FISH HUSBANDRY & FISHERY TECHNIQUES WITH MUCH
  PRACTICAL EXPERIENCE IN BOTH AREAS. SPECIAL COSTS: HIP
  BOOTS & RAIN GEAR REQUIRED. ADMISSION TO THE PROGRAM IS
  ON FIRST COME, FIRST SERVED BASIS (PROGRAM LIMITED TO 30
  STUDENTS). APPLICATIONS ACCEPTED AFTER NOV. 1 FOR COMING
  YEAR. STUDENTS NEED TO BE IN GOOD PHYSICAL CONDITION. 1-YR
  CERTIFICATE PROGRAM AVAILABLE TO FULL-TIME, PRACTICING FISH
  CULTURISTS ONLY.
- - - - - 21219 OREGON STATE UNIVERSITY - CORVALLIS:
'FISHERIES AND WILDLIFE': BACHELOR'S OR ADVANCED DEGREE PROGRAMS
  AVAILABLE. AFTER FRESHMAN YEAR, STUDENTS ELECT EITHER
  FISHERIES OR WILDLIFE SCIENCE AS A MAJOR. MOST COMMUNITY
  COLLEGES & SEVERAL OTHER 4-YEAR SCHOOLS OFFER THE FIRST YEAR
  OR TWO OF DEGREE REQUIREMENTS WHICH CAN THEN BE TRANSFERRED TO
  OSU FOR DEGREE COMPLETION.
```

TRANSFER SCHOOLS: Lists all schools in the state which offer courses which may be used to begin study in a particular field, and which are acceptable as transfer credits to institutions offering complete programs in the field. The five-digit number preceding the school name is the CIS code number used in obtaining detailed information about the schools.

```
071    FISHERIES & WILDLIFE SCIENCE TRANSFER PROGRAMS:
STUDENTS WISHING TO TRANSFER TO THE OSU PROGRAM SHOULD DO SO
AT THE END OF THE FRESHMAN YEAR.
- - - - - 22411 BLUE MTN CC
- - - - - 22413 CENTRAL ORE CC
- - - - - 22207 CHEMEKETA CC
- - - - - 22704 CLARK COLLEGE (VANCOUVER, WA.)
- - - - - 21414 EASTERN OREGON STATE COLLEGE
- - - - - 22804 LANE CC
- - - - - 21215 OREGON COLLEGE OF EDUCATION
- - - - - 21113 SOUTHERN OREGON STATE COLLEGE
```

File Name: SCHOOL FILE

Access Command: SCH _____, _____, _____ (1, 2, or 3 five digit school codes)

File Features:

The School File permits users to immediately obtain information on approximately 200 post-secondary educational institutions in the state. Information is available on over 60 topics, including general information, enrollment, admission and graduation requirements, programs offered, housing and financial information, and student services. School information is printed in columns so that information on as many as three schools can be printed at one time and easily compared.

Suggested Uses:

To easily compare basic information on schools in which the user may be interested.

```
?SCH 22709,21219,22804
WHAT DO YOU WANT TO KNOW ABOUT THE SCHOOLS?
    TYPE IN THE SCHOOL TOPICS.  EXAMPLE: 1-5, 21, 71, 85
    SCHOOL TOPIC CODES ARE ON PAGE 23 OF YOUR HANDBOOK.
?1-5,85
```

	MT. HOOD COMMUNITY COLLEGE 26000 SE STARK GRESHAM, OR 97030	OREGON STATE UNIVERSITY CORVALLIS, OR 97331	LANE COMMUNITY COLLEGE 4000 E 30TH EUGENE, OR 97401
01 GENERAL INFORMATION			
TYPE OF SCHOOL	2-YEAR PUBLIC	4-YEAR PUBLIC UNIVERSITY	2-YEAR PUBLIC
GRADUATE DEGREES	NONE	EXTENSIVE	NONE
SCHEDULE OF CLASSES	DAY & NIGHT, QUARTER SYSTEM	MOSTLY DAY, QUARTER SYSTEM	DAY & EVENING, QUARTER SYSTEM
CORRESPONDENCE COURSES	NO	NO	NO
UNDERGRAD SUMMER CURRICULUM	EXTENSIVE	EXTENSIVE	LIMITED
LOCATION OF SCHOOL	GRESHAM	CORVALLIS	EUGENE
POPULATION	23,000	39,750	90,100
CAMPUS TO CITY CENTER	2 MILES	11 BLOCKS	4.5 MILES
MILES FROM PORTLAND	14	81	110
02 ENROLLMENT	FALL, 1977	FALL, 1977	FALL, 1977
TOTAL ENROLLMENT	10,146	16,502	6,969
WOMEN	5,363	6,607	3,549
MEN	4,783	9,895	3,420
FULL-TIME STUDENTS	3,800	14,308	3,978
PART-TIME STUDENTS	6,346	2,194	2,991
GRADUATE STUDENTS	0	NOT REPORTED	0
OUT-OF-STATE STUDENTS	NOT REPORTED	NOT REPORTED	NOT REPORTED
NEW 1ST-YEAR WOMEN	1,296	1,935	1,467
NEW 1ST-YEAR MEN	1,518	2,203	1,597

SCHOOL TOPICS

In the School File information is available on 63 general topics which are listed in the User's Handbook. Additional school information is available under each topic heading. The following printout shows the information covered in each topic.

01 GENERAL INFORMATION
TYPE OF SCHOOL
GRADUATE DEGREES
SCHEDULE OF CLASSES
CORRESPONDENCE COURSES
UNDERGRAD SUMMER
CURRICULUM
LOCATION OF SCHOOL
POPULATION
CAMPUS TO CITY CENTER
MILES FROM PORTLAND

02 ENROLLMENT
TOTAL
ENROLLMENT
WOMEN
MEN
FULL-TIME STUDENTS
PART-TIME STUDENTS
GRADUATE STUDENTS
OUT-OF-STATE STUDENTS
NEW 1ST-YEAR WOMEN
NEW 1ST-YEAR MEN

03 MINORITY ENROLLMENT
TOTAL AMERICAN MINORITY
AFRO-AMERICAN
AMERICAN INDIAN
ASIAN AMERICAN
CHICANO
(THESE FIGURES REFLECT RESPONSES OF PEOPLE WHO CHOOSE TO INDICATE THEIR MINORITY GROUP MEMBERSHIP)

04 ENROLLMENT BY
AGE GROUP
UNDER 25
25 TO 30
OVER 30

05 CONTACT FOR
MORE INFORMATION
CONTACT PERSON
SCHOOL VISITS
SCHOOL VISIT CONTACT
OVERNIGHT LODGING

65 FOREIGN STUDY

66 HONORS PROGRAM

67 ROTC

68 ETHNIC STUDIES

69 WOMEN'S STUDIES

71 ALTERNATIVE CREDIT
OPPORTUNITIES
CONTACT FOR MORE
INFORMATION
ADVANCED PLACEMENT
CLEP PROGRAM
CHALLENGE FOR
COURSE CREDIT
OTHER

72 CLASS SIZE-FRESHMEN
LECTURE
LABORATORY
DISCUSSION
LOWER DIVISION
COURSES TAUGHT
BY GRAD ASSTS.

73 SCHOOL-WIDE
GRADUATION
REQUIREMENTS

74 GRADING SYSTEM

75 FRESHMAN (OR 1ST
YEAR) ADMISSION
EDUCATION REQUIRED
H.S. GPA REQUIRED
OTHER ADMISSION ROUTES
REQUIRED TESTS
PERSONAL INTERVIEW
H.S. COURSES REQUIRED
OR RECOMMENDED
ADMISSION SELECTIVITY
DROP-OUT RATE
(SEPT-JUNE)

76 TRANSFER ADMISSION
REQUIREMENTS

SCHOOL TOPICS Continued

77 ADMISSION APPLICATION
PROCEDURES
ITEMS TO SUBMIT:
APPLICATION FORM
TRANSCRIPT
APPLICATION FEE
PERSONAL
RECOMMENDATIONS
OTHER
DEADLINE

78 SPECIAL ADMISSIONS-
MINORITIES/ADULTS

79 GRADUATE SCHOOL
ADMISSION

80 DORMITORIES
COST RANGE-DOUBLE ROOM
DORMS ARE REQUIRED FOR
% OF FROSH
WOMEN IN DORMS
% OF FROSH
MEN IN DORMS
ADDRESS FOR
APPLICATION
APPLICATION DEADLINE
APPLICATION DEPOSIT

81 GREEK HOUSING
SORORITIES/FRATERNITIES
COST: ACADEMIC YEAR
HRS OF WORK EXPECTED

82 COOPERATIVE HOUSING
WOMEN/MEN
COST: ACADEMIC YEAR
HRS OF WORK EXPECTED

83 OFF-CAMPUS HOUSING
CAMPUS AREA:
AVAILABILITY
RENT RANGE PER MONTH
OTHER AREAS:
AVAILABILITY
RENT RANGE PER MONTH
STUDENTS LIVING
OFF CAMPUS

84 MARRIED STUDENT
CAMPUS HOUSING
AVAILABILITY
RENT RANGE PER MONTH

85 SINGLE STUDENT COSTS
TUITION AND FEES
BOARD, ROOM, EXPENSES
TOTAL COSTS
REFUND POLICY

86 MARRIED STUDENT
COSTS
TUITION AND FEES
BOARD, ROOM, EXPENSES
TOTAL COSTS
REFUND POLICY

87 PART-TIME STUDENT
COSTS
TUITION
APPROX. BOOK & SUPPLIES
APPROX. OTHER EXPENSES

88 AID AVAILABLE
BASIC ED OPPORTUNITY
GRANTS (BEOG)
(APPLY DIRECTLY TO THE U.S. OFFICE OF EDUCATION. GRANT MAY BE USED AT ANY ACCREDITED INSTITUTION. SEE YOUR SCHOOL COUNSELOR FOR FORMS.)
SUPPLEMENTARY ED. OPP.
GRANTS (SEOG)
STATE NEED GRANTS
AND CASH AWARDS
(APPLY TO ORE. ST. SCHOLARSHIP COMM. SEE YOUR COUNSELOR.)
OTHER GRANTS
NATIONAL DIRECT LOANS
(NDSL)
GUARANTEED STUDENT
LOANS (GSL)
(APPLY DIRECTLY TO YOUR BANK. GET FORMS FROM THE FINANCIAL AID OFFICER AT THE SCHOOL YOU PLAN TO ATTEND.)
OTHER LOANS
FINANCIAL AID JOBS
SCHOLARSHIPS

87 AID APP PROCEDURES
ITEMS TO SUBMIT:
FINANCIAL AID FORM
(FAF)--REPLACING THE
PCS & SFS
  -PREFERRED DATE
  -ABSOLUTE DEADLINE
ORE STATE SCHOLARSHIP
COMMISSION APPLICATION
  -PREFERRED DATE
  -ABSOLUTE DEADLINE
SCHOOL FINANCIAL
AID APPLICATION
  -PREFERRED DATE
  -ABSOLUTE DEADLINE
BASIC EDUCATIONAL
OPPORTUNITY GRANT
  (OBTAIN BEOG APPLICATION FROM YOUR COUNSELOR OR USE THE FINANCIAL AID FORM (FAF). STUDENT NOTIFIED OF GRANT AWARD BY GOVT.)
OTHER
  (PREFERRED & ABSOLUTE DEADLINES: MAILING APPLICATION BY PREFERRED DATE GIVES YOU PRIORITY STATUS FOR FINANCIAL AID. BUT YOU MAY STILL RECEIVE AID IF YOU MAIL APPLICATION BEFORE THE ABSOLUTE DEADLINE.)
CONTACT PERSON
FOR FIN. AID

90 APPLICANTS
   RECEIVING AID
% FULL-TIME FROSH
 RECEIVING AID
% OTHER FULL-TIME
 UNDERGRADS ON AID
EXAMPLE OF AID FOR
TOTAL NEED STUDENT--
STUDENT WITH NO MONEY
EXAMPLE OF AID FOR
STUDENT NEEDING 1/2
MONEY TO ATTEND
EXAMPLE OF AID FOR
STUDENT NEEDING 1/4
MONEY TO ATTEND
  ('NEED' AS DEFINED FOR FINANCIAL AID USUALLY RESULTS FROM A COMPLEX FORMULA APPLIED TO AN INDIVIDUAL'S SITUATION. THE FORMULA CONSIDERS FAMILY & STUDENT INCOME, FAMILY SIZE, UNUSUAL EXPENSES, & COST AT THE SPECIFIC SCHOOL THE STUDENT SELECTS.)

91 PART-TIME JOBS
LOCATION OF MOST
AVAILABILITY OF JOBS
WAGE RATE PER HOUR

92 SERVICES FOR ALL
   STUDENTS
ACADEMIC ADVISING
COUNSELING
PLACEMENT
FIN AID COUNSELING
ORIENTATION
READING & STUDY SKILLS
REMEDIAL INSTRUCTION
TUTORING

93 SERVICES AND PRO-
   GRAMS FOR SPECIAL
   STUDENT GROUPS

101 SCHOOL-SPONSORED
    HEALTH SERVICES

102 LOCATION OF
    DAY CARE

103 LIBRARY AVAILABLE
    SCHOOL
    TOWN

104 BUS SERVICE
   AVAILABLE
   COST

105 STUDENT PARKING
    AVAILABLE

QUESTIONS AND ANSWERS ABOUT QUEST

What is QUEST?

QUEST is twenty-one questions which enable the user to construct an individual profile by expressing a preference for what types of work he or she wishes to perform.

What is QUEST List?

QUEST List is an individualized list of occupations which match the preferences a user indicates in his or her answers to the various QUEST items.

What is the purpose of QUEST?

In the simplest sense, QUEST was designed to help the user apply what he or she knows about his or her interests and abilities to better understand the world of work. Specifically the QUEST process should help the user identify some interesting occupations while stimulating him or her to seek information about jobs and education.

In a recent pilot test of the revised QUEST over 80% of the users felt QUEST helped them identify "some new occupations to consider for future work." In addition, over 80% of the users studied at least one occupational description after using QUEST.

Is QUEST a test?

No. QUEST does not predict or measure but rather assists individuals in identifying new occupations for exploration.

How were the QUEST questions selected?

Originally a group of counselors and career development specialists generated a list of variables related to the world of work which they thought useful for people to consider during the career planning process. The list was then reviewed by a group of labor market analysts who selected those variables for which labor market data existed to analyze and categorize occupations. Through the process of considerable initial and annual testing and revision the current QUEST has evolved.

How does QUEST aid the counseling process?

In addition to facilitating the acquisition of educational and occupational information, QUEST tends to constructively structure the counseling process. That is, the twenty-one items in QUEST are representative of key considerations in career planning. By discussing the user's response to each question both the counselor and the client acquire greater insight into the client's preferences.

What is the process for determining what occupations are eliminated by certain responses?

Each of the 240 occupations in the CIS files has been "coded" with regard to each QUEST question. For instance, question #1 asks the user if he or she wants to do "continuous" work. Utilizing a variety of data sources, the CIS analyst studies each occupation to see if it requires continuous work and codes the occupation accordingly. For instance, those occupations requiring "continuous work" will be eliminated from a user's list if he or she answers "no" to question #1. This coding process is completed for each QUEST question as it relates to each CIS occupation.

It is important to note that an occupation is coded for a particular attribute when there are "reasonable prospects for a career" in the occupation for people with that attribute. While no "requirement" is absolute, the QUEST List attempts to identify those occupations that have the greatest probability of matching the user's interests.

What is the average length of a QUEST List?

Most users find ten to forty occupations remaining after completing QUEST. It is important to note, however, that individual users' lists may vary significantly from this average depending upon how clearly they understand themselves and also upon how realistic their preferences are. QUEST is an individualized instrument. Different users' QUEST Lists will and should differ from this norm on occasion.

What does it mean if a user gets zero or very few occupations on his or her QUEST List?

It means that the user has been very restrictive in his or her answers to QUEST. Perhaps the user wants a starting salary of $1,250 a month, will attend no education and training beyond high school, and prefers to use only low levels of several abilities on a job. Such a user is likely to receive zero or very few occupations on his or her QUEST List. This user should be encouraged to re-evaluate his or her preferences and fill out QUEST again.

What does it mean if a user receives a very lengthy QUEST List?

It means that user is not very particular about what type of work he or she would like to do. Users with long QUEST Lists often answer "no preference or I'm not sure," "I want to make no more than at least the minimum wage to start," are willing to use a high level of several abilities in their work, and are willing to attend a high number of years of education and training. Users with particularly lengthy lists should be encouraged to re-evaluate their answers and consider being more restrictive as they fill out QUEST a second time.

How can I learn more about the research which has been done in constructing and validating QUEST?

Write CIS and request information regarding the readability and validity of QUEST.

QUEST CRITERIA

The following are criteria CIS uses to evaluate its QUEST questionnaire. These criteria should help the counselor understand the purpose and intent of QUEST. The question being addressed is "What comprises a high quality QUEST?"

1. For a diverse user population QUEST should:

   - be understandable.
   - address issues about which users are able and willing to express a preference.
   - be coded from the most reliable labor market data.
   - address issues which users perceive to be relevant to the career choice process.
   - provide response categories which accurately reflect users' preferences.
   - be a reasonable length.

2. The QUEST List should:

   - identify new relevant occupations for the user.
   - exclude most occupations which are clearly irrelevant to the user.

3. QUEST and QUEST List should:

   - actively facilitate users' entrance into the information files.
   - make an impact on users' career plans.

4. Users should:

   - perceive QUEST as an exploratory tool (not a test).
   - understand the relation between QUEST and QUEST List (e.g., understand how the sorting process works).

UNDERSTANDING QUEST

PURPOSE: To familiarize counselors, paraprofessionals and CIS coordinators with the labor market concepts covered in QUEST.

PROCESS: Each person should:

1. Fill out the worksheet for each QUEST question. The worksheets have two sections. The first asks that you study the QUEST question and the labor market concept it is communicating. The second portion requires you to match up occupations with the appropriate response category for the QUEST question.

2. Upon completion of the worksheets you should check each question with the key located on page II-28. If the labor market concept addressed by the QUEST item is unclear after completing this process, please contact a member of the CIS user services staff to obtain additional assistance. Other valuable reference sources include the CIS occupational description book and the Occupational Outlook Handbook.

QUEST Question #1

Part A: Study this new question and the concept it is communicating.

1. CONTINUOUS On some jobs you do the same things many times a day and you work at a steady pace. Would you want to do this type of work?

ANSWER	CODE WORD
Yes, I would	*YES*
No, I would not	*NO*
No preference or I'm not sure	*NP*

Concept:

Adaptability to performing repetitive work, or to continuously performing the same work, according to set procedures, sequence, or pace. Distinguish between work that is inherently of a repetitive nature and the human facility of making the familiar routine. This factor should be considered when the work is performed according to a routine, or set sequence, and there is an absence of diversion or room for independent judgment.

Part B: Of the occupations below, mark those which you feel require "continuous" work.

5464	Machinists	_____
5926	Production Painters and Finishers	_____
6142	Bus and Taxi Drivers	_____
6144	Truck Drivers	_____

QUEST Question #2

Part A: Study this new question and the concept it is communicating.

2. PRECISE On some jobs there is little room for error so you must be very exact in your work. Would you want to do this type of work?

ANSWER	CODE WORD
Yes, I would	*YES*
No, I would not	*NO*
No preference or I'm not sure	*NP*

Concept:

Adaptability to situations requiring the precise attainment of set limits, tolerances, or standards. Consider jobs for this factor when the worker must be precise, thorough, exacting, or meticulous in regard to material worked; or in activities such as numerical determinations, record preparation, or inspecting.

Part B: Of the occupations below, mark those which you feel require "precise" work.

2672	Quality Control Inspectors	_____
4146	Floral Designers	_____
4586	Cabinetmakers	_____
4724	Commercial Artists and Designers	_____
5626	Electricians	_____
8124	Pharmacists	_____

QUEST Question #3

Part A: Study this new question and the concept it is communicating.

3. USING FACTS On some jobs you may have to inspect and analyze factual information to reach conclusions. Would you want to do this type of work?

ANSWER	CODE WORD
Yes, I would	*YES*
No, I would not	*NO*
No preference or I'm not sure	*NP*

Concept:

Adaptability to making generalizations, judgments, or decisions based on measurable or verifiable criteria.

Consider jobs for this factor when the worker makes evaluations on the basis of data. Be aware of situations in which the worker appears to be evaluating on the basis of senses or experience, but is actually using memorized data.

Part B: Of the occupations below, mark those which you feel require "using facts".

1195	Public Relations Workers	_____
1614	Accountants and Auditors	_____
1634	Appraisers and Underwriters	_____
4274	Plumbers	_____
7418	Automobile Salespeople	_____
8115	Optometrists	_____

QUEST Question #4

Part A: Study this new question and the concept it is communicating.

4. WORKING WITH OTHERS On some jobs you must deal with many different people to get your work done. Would you want to do this type of work?

ANSWER	CODE WORD
Yes, I would	*YES*
No, I would not	*NO*
No preference or I'm not sure	*NP*

Concept:

Adaptability to dealing with people beyond giving and receiving instructions.

Consider jobs for this factor when the worker must relate to people in situations involving more than giving or receiving instructions.

Part B: Of the occupations below, mark those which you feel require "working with others".

1416	Clerk Typists	_____
2314	Land Use Planners	_____
5686	Electronics Assemblers	_____
7416	Insurance Salespeople	_____
7856	Flight Attendants	_____
8182	Funeral Directors and Embalmers	_____

QUEST Question #5

Part A: Study this new question and the concept it is communicating.

5. PERSUADING, SELLING On some jobs you sell or try to convince people of something. Would you want to do this type of work?

ANSWER	CODE WORD
Yes, I would	*YES*
No, I would not	*NO*
No preference or I'm not sure	*NP*

Concept:

Adaptability to influencing people in their opinions, attitudes, or judgments about ideas or things.

Consider jobs for this factor when the worker is in a position to motivate, convince, or negotiate.

Part B: Of the occupations below, mark those which you feel require "persuading, selling".

1136	Education Administrators	_____
3112	Automobile Mechanics	_____
7414	Commercial Salespeople	_____
8418	Psychologists	_____
8486	Recreation Leaders	_____

QUEST Question #6

Part A: Study this new question and the concept it is communicating.

6. DECISION MAKING On some jobs you are responsible for making final decisions about projects, plans and other people's duties. Would you want to do this type of work?

ANSWER	CODE WORD
Yes, I would	*YES*
No, I would not	*NO*
No preference or I'm not sure	*NP*

Concept:

Adaptability to accepting responsibility for the direction, control, or planning of an activity.

Consider jobs for this factor when the worker is in a position to negotiate, organize, direct, supervise, formulate practices, or make final decisions. Do not consider when the planning is for one's own activities.

Part B: Of the occupations below, mark those which you feel require "decision making".

1428	Library Assistants	_____
2164	Social Program Planners	_____
4124	Foresters	_____
4324	Bakers	_____
6128	Railroad Conductors	_____
8116	Dieticians	_____

QUEST Question #7

Part A: Study this new question and the concept it is communicating.

7. CHANGE On some jobs you must move often from one task to another and use several different skills. Would you want to do this type of work?

ANSWER	CODE WORD
Yes, I would	*YES*
No, I would not	*NO*
No preference or I'm not sure	*NP*

Concept:

Adaptability to performing a variety of duties, often changing from one task to another of a different nature without loss of efficiency or composure.

Do not interpret variety as meaning merely several. Several duties, all requiring the same or very similar skills, knowledge, and abilities do not constitute variety, which is the key word in this factor. If the several duties in a job indicate significant differences in technologies, techniques, and procedures, environmental factors and physical demands, or work situations, the analyst should consider this factor.

Part B: Of the occupations below, mark those which you feel require "change".

1132	Hotel and Motel Managers	_____
1411	Office Managers	_____
1634	Appraisers and Underwriters	_____
3422	Building Maintenance Workers	_____
9842	Models	_____

QUEST Question #8

Part A: Study this new question and the concept it is communicating.

8. CREATIVE On some jobs you must interpret ideas and express feelings in creative ways. Would you want to do this type of work?

ANSWER	CODE WORD
Yes, I would	*YES*
No, I would not	*NO*
No preference or I'm not sure	*NP*

Concept:

Adaptability to situations involving the interpretation of feelings, ideas, or facts in terms of personal viewpoint.

Consider jobs for this factor when the worker is called upon to use creativity, self-expression, or imagination. Interpretation is defined as an individual's concept of a work of art, subject, plan, etc. as shown in performance, criticism, artistic representation, or the like.

Part B: Of the occupations below, mark those which you feel require "creative" work.

2174	Freelance Writers	_____
4424	Textile Machine Operators	_____
4734	Photographers	_____
5664	Broadcast Technicians	_____
9866	Performing Artists	_____

QUEST Question #9

Part A: Study this new question and the concept it is communicating.

9. EYE-HAND COORDINATION You would need to be good at handling things quickly as you see them. You might have to be quick and accurate at sorting or operating things. Mark the highest level of coordinating eye and hand movements you want to use on a job.

ANSWER	CODE WORD
Low ability to coordinate eye and hand movements	*ELO*
Medium ability to coordinate eye and hand movements	*EM*
High ability to coordinate eye and hand movements	*EHI*
I'm not sure how much of this ability I want to use	*ENS*

Concept:

Ability to coordinate eyes and hand or fingers rapidly and accurately in making precise movements with speed. Ability to make movement response accurately and swiftly.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation requires high, medium or low levels of "eye-hand coordination."

4124	Foresters	_____
4446	Seamstresses and Tailors	_____
8114	Veterinarians	_____

QUEST Question #10

Part A: Study this new question and the concept it is communicating.

10. WORKING WITH FINGERS You would need to be able to do very precise work with your fingers. You might have to handle small things quickly and carefully. Mark the highest level of working with fingers you want to use on a job.

ANSWER	CODE WORD
Low level of working with fingers	*FLO*
Medium level of working with fingers	*FM*
High level of working with fingers	*FHI*
I'm not sure what level of working with fingers I want to use	*FNS*

Concept:

Ability to move fingers, and manipulate small objects with fingers, rapidly or accurately.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation requires high, medium or low levels of "working with fingers."

3118	Small Engine Repairers	_____
6144	Truck Drivers	_____
4146	Floral Designers	_____
8112	Physicians	_____
2674	Sanitarians	_____

QUEST Question #11

Part A: Study this question and the concept it is communicating.

11. CHECKING ACCURACY You would need to copy words or numbers correctly. You might have to be good at things like proofreading written material. Mark the highest level of checking accuracy you want to use on a job.

ANSWER	CODE WORD
Low level of checking accuracy	*CLO*
Medium level of checking accuracy	*CM*
High level of checking accuracy	*CHI*
I'm not sure what level of checking accuracy I want to use	*CNS*

Concept:

Ability to perceive pertinent detail in verbal or tabular material. Ability to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation. A measure of speed of perception is required in many industrial jobs even when the job does not have verbal or numerical content.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation requires high, medium or low levels of "checking accuracy."

3184	Jewelers	_____
7122	Mail Carriers & Postal Clerks	_____
1186	Personnel Officers	_____
9476	Security Guards	_____
8433	Legal Assistants	_____

QUEST Question #12

Part A: Study this question and the concept it is communicating.

12. USE OF WORDS You would need to read and follow instructions. You might have to express yourself clearly when writing or talking with people. Mark the highest level use of words you want in a job.

ANSWER	CODE WORD
Low use of words	*VLO*
Medium use of words	*VM*
High use of words	*VHI*
I'm not sure what level use of words I want in a job	*VNS*

Concept:

The ability to understand meanings of words and to use them effectively. The ability to comprehend language, to understand relationships between words and to understand meanings of whole sentences and paragraphs.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation requires high, medium or low "use of words."

4516	Chokersetters	_____
2314	Land Use Planners	_____
8458	Education Program Specialists	_____
1424	Travel Agents	_____
2174	Freelance Writers	_____
4288	Railroad Laborers	_____

QUEST Question #13

Part A: Study this question and the concept it is communicating.

13. USE OF NUMBERS You would need to be able to do addition, subtraction, multiplication and division. You might have to solve arithmetic problems quickly and correctly. Mark the highest level use of numbers you want in a job.

ANSWER	CODE WORD
Low use of numbers	*NLO*
Medium use of numbers	*NM*
High use of numbers	*NHI*
I'm not sure what level use of numbers I want in a job	*NNS*

Concept:

The ability to perform arithmetic operations quickly and accurately.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation requires high, medium or low "use of numbers."

9824	Radio and Television Announcers	_____
2332	Mathematicians and Statisticians	_____
8459	Child Care Workers	_____
3164	Office Machine Repairers	_____
2316	Architects	_____
8184	Barbers	_____

QUEST Question #14

Part A: Study this question and the concept it is communicating.

14. CATCHING ON TO THINGS You would need the ability to understand procedures and the reasoning behind them. You might have to be good at figuring out complicated things. Mark the highest level of catching on to things you want to use on a job.

ANSWER	CODE WORD
Low level of catching on to things	*GLO*
Medium level of catching on to things	*GM*
High level of catching on to things	*GHI*
I'm not sure what level of catching on to things I want to use.	*GNS*

Concept:

General learning ability. The ability to "catch on" or understand instruction and underlying principles; the ability to reason and make judgments. Closely related to doing well in school.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation requires low, medium, or high level of "catching on to things."

3112	Automobile Mechanics	_____
3455	Janitors	_____
8454	University and College Teachers	_____
8164	Licensed Practical Nurses	_____
4424	Textile Machine Operators	_____

QUEST Question #15

Part A: Study this new question and the concept it is communicating.

15. SEEING DETAIL You would need to be able to tell slight differences in shapes in objects and lengths of lines. You might have to be able to see detail in objects, pictures or drawings. Mark the highest level of seeing detail you want to use on a job.

ANSWER	CODE WORD
Low ability to see detail	*DLO*
Medium ability to see detail	*DM*
High ability to see detail	*DHI*
I'm not sure how much of this ability I want to use	*DNS*

Concept:

Ability to perceive pertinent detail in objects or in pictorial or graphic material. Ability to make visual comparisons and discriminations and see slight differences in shapes and shadings of figures and widths and lengths of lines.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation requires a high, medium or low level of "seeing detail."

1152	Construction Superintendents	_____
2316	Architects	_____
4328	Commercial Fishermen/Women	_____

QUEST Question #16

Part A: Study this new question and the concept it is communicating.

16. PHYSICAL ACTIVITY Jobs require different amounts of physical activity. Would you be able and willing to be very active, often handle 50-pound objects and sometimes lift 100 pounds or more?

ANSWER	CODE WORD
Yes, I would	*YES*
No (I couldn't or wouldn't want to)	*CD*
No preference or I'm not sure	*NP*

(If user answers 'CD,' the following text message will appear.)

What is the most activity you would be able and willing to do?

ANSWER		CODE WORD
HEAVY	*Very active, often handling 50-pound objects*	*YES*
MEDIUM	*Moving around a lot and handling objects 10 to 25 pounds*	*MED*
LIGHT	*Moving around some and handling objects usually under 10 pounds*	*LIGH*
SITTING	*Rarely moving around. Usually sitting*	*SIT*
NO PREFERENCE or I'm not sure		*NP*

Concept:

Sedentary Work -- Lifting 10 pounds maximum and occasionally lifting and/or carrying such articles as dockers, ledgers, and small tools. Although a sedentary job is defined as one which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required only occasionally and all other sedentary criteria are met.

PHYSICAL ACTIVITY (Question #16)
Continued

Concept: (continued)

Light Work -- Lifting 20 pounds maximum with frequent lifting and/or carrying objects weighing up to 10 pounds. Even though the weight lifted may be only a negligible amount, a job will be in this category (1) when it requires walking or standing to a significant degree; or (2) when it requires sitting most of the time but entails pushing and pulling of arm and/or leg controls.

Medium Work -- Lifting 50 pounds maximum with frequent lifting and/or carrying of objects weighing up to 25 pounds.

Heavy Work -- Frequent lifting and/or carrying of 50 pound objects and sometimes lifting objects in excess of 100 pounds.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation entails a heavy, medium, light, or sedentary level of "physical activity."

1454	Telephone and Telegraph Operators	_____
2364	Drafters	_____
3164	Office Machine Repairers	_____
3184	Jewelers	_____
6156	Yarding and Loading Occupations	_____
7852	Bartenders	_____
8166	Nurse Aides and Orderlies	_____
8459	Child Care Workers	_____
9426	Fire Fighters	_____
7122	Mail Carriers & Postal Clerks	_____

QUEST Question #17

Part A: Study this question and the concept it is communicating.

17. EDUCATION AND TRAINING How much education and training will you have when you enter your career field? Consider your present education plus additional education you would take. Circle that longest education or training program you would be willing to complete.

ANSWER	CODE WORD
No special education, training or experience before starting the job	*NO*
No more than high school graduation (or G.E.D.) and a short training period	*HS*
Up to one year of full-time schooling (or two years of apprentice-type training)	*ONE*
Up to two to three years of full-time schooling (or three to four years of apprentice-type training)	*TWO*
Up to a four-year college degree or equivalent	*FOUR*
Any amount of education, including university graduate school training	*ANY*

Concept:

Education and Training includes attendance at community colleges, universities, high schools, proprietary institutions, private vocational schools, formal apprenticeship programs, G.E.D. programs and any other formal mechanisms of career preparation. The more education and training a user is willing to receive the more occupations will remain on his or her QUEST List. It is important to remember that "ANY" education frequently includes post-graduate education.

EDUCATION AND TRAINING (Question #17)
Continued

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation requires no special education, high school, one year, two to three years, a four-year college degree or any amount of training.

1642	Cashiers and Checkers	_____
4126	Foresters	_____
5914	Petroleum Processing Occupations	_____
8115	Optometrists	_____
8174	Dental Hygienists	_____
8186	Cosmetologists	_____
8462	Librarians	_____
9426	Fire Fighters	_____

QUEST Question #18

Part A: Study this question and the concept it is communicating.

18. BEGINNING WAGE How much must an occupation pay (for regular, full-time work) before you would consider it? These wages refer to the average starting rate before deductions; you would earn more with experience.

ANSWER	CODE WORD
Not sure or not important at this time	*NI*
At least the minimum wage to start	*MIN*
At least $700-$999 per month ($4.03-$5.75 per hour)	*700*
At least $1,000-$1,249 per month ($5.76-$7.20 per hour)	*1000*
At least $1,250-$1,499 per month ($7.21-$8.64 per hour)	*1250*
At least $1,500 per month ($8.65 per hour or more)	*1500*

Concept:

These wage rates refer to <u>beginning, entry-level</u> wages. In most occupations wages will go up as the employee gains experience. The higher the beginning wages a user desires the fewer the number of jobs which will be available to him or her.

Part B: For each of the occupations below, indicate in the space provided whether you feel the occupation falls within the minimum starting wage, $700-$999, $1,000-$1,249, $1,250-$1,499 or at least $1,500 per month.

1138	Public Administrators	_____
4144	Groundskeepers and Gardeners	_____
4274	Plumbers	_____
4464	Laundry and Dry Cleaning Workers	_____
4538	Lumber Graders and Inspectors	_____
6172	Railroad Engineers	_____
8124	Pharmacists	_____
8162	Registered Nurses	_____
8416	Caseworkers	_____
8422	Parole and Probation Offiers	_____

QUEST Question #19

Part A: Study this new question and the concept it is communicating.

19. WORK SETTING Where would you like to work?

ANSWER	CODE WORD
Mostly indoors or under shelter	*IN*
Mostly outdoors	*OUT*
No preference or I'm not sure	*NP*

Concept:

Indoors	Protection from weather conditions but not necessarily from temperature changes.
Outdoors	No effective protection from weather.

Part B: For each of the occupations below, indicate whether you feel the occupation involves mostly indoor or outdoor work.

4328	Commercial Fishermen/Women	_____
6172	Railroad Engineers	_____
7856	Flight Attendants	_____
4278	Roofers	_____

QUEST Question #20

Study this question and the concept it is communicating.

20. CITY SIZE Some people want to work only in a large city; others want to work in a small town. What size community are you willing to work in?

ANSWER	CODE WORD
Only in a large city (like Spokane, Portland, San Francisco metropolitan areas)	*LM*
Only in a small city (like Medford, Salem)	*SC*
Only in a small town-rural area	*RUR*
In a large city or small city, but not a small town-rural area	*LMSC*
In a small city or small town-rural area, but not a large city	*SCR*
No preference about city size; I am willing to work in any size community	*NP*

Concept:

The size of a city is determined by the "labor area" in which it is located. With the exception of Marion and Polk counties and Multnomah, Washington and Clackamas counties (both of these groups represent single labor areas), a "labor area" is a county.

Large City — Located in a labor area with a population greater than 250,000. In Oregon, only those cities located in the Portland metropolitan area and Lane County are considered "large cities."

Small City — Located in a labor area with a population greater than 50,000 but less than 250,000. Cities located in Benton, Coos, Douglas, Jackson, Josephine, Klamath, Linn, Marion, Polk and Umatilla counties are considered "small cities."

Small Town-Rural Area — Located in a labor area with a population less than 50,000. Those cities not located in the counties mentioned above are considered to be "small town-rural areas."

QUEST Question #21

Study this question and the concept it is communicating.

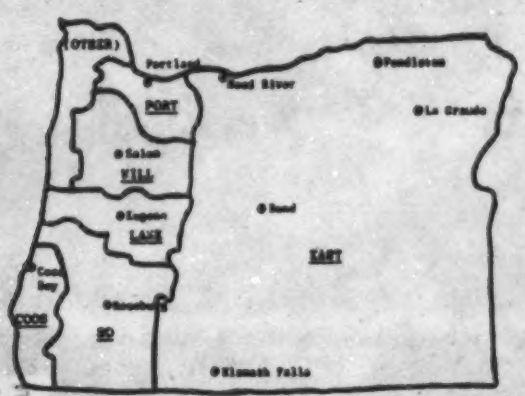
21. REGION Where are you willing to work?

ANSWER	CODE WORD
Only in the Coos-Curry County Area	*COOS*
Only in the Lane County Area	*LANE*
Only in the Portland Metropolitan Area	*PORT*
Only in Eastern Oregon	*EAST*
Only in the Mid-Willamette Valley Area	*WILL*
Only in Southern Oregon	*SO*
Only in Oregon	*ORE*
Only in the Pacific Northwest	*NW*
Anywhere in the U.S.	*US*

Concept:

This question is based on career prospects in different areas in the state. Although some occupations are distributed proportionately with population, others are so localized that they are unlikely careers to pursue in many areas.

The map below reflects the areas represented in the question:



ANSWERS TO QUEST WORKSHEETS

1. CONTINUOUS	Required:	Production Painters & Finishers Truck Drivers
	Not Required:	Machinists Bus and Taxi Drivers
2. PRECISE	Required:	Quality Control Inspectors Cabinetmakers Electricians Pharmacists
	Not Required:	Floral Designers Commercial Artists and Designers
3. USING FACTS	Required:	Accountants and Auditors Appraisers and Underwriters Plumbers Optometrists
	Not Required:	Public Relations Workers Automobile Salespeople
4. WORKING WITH OTHERS	Required:	Land Use Planners Insurance Salespeople Flight Attendants Funeral Directors and Embalmers
	Not Required:	Clerk Typists Electronics Assemblers
5. PERSUADING, SELLING	Required:	Education Administrators Commercial Salespeople Psychologists
	Not Required:	Automobile Mechanics Recreation Leaders
6. DECISION-MAKING	Required:	Social Program Planners Foresters Railroad Conductors Dieticians
	Not Required:	Library Assistants Bakers

7.	CHANGE	Required:	Hotel and Motel Managers Office Managers Building Maintenance Workers
		Not Required:	Appraisers and Underwriters Models
8.	CREATIVE	Required:	Freelance Writers Photographers Performing Artists
		Not Required:	Textile Machine Operators Broadcast Technicians
9.	EYE-HAND COORDINATION	Low Ability:	Foresters
		Medium Ability:	Seamstresses & Tailors Veterinarians
		High Ability:	None (NOTE: There are no CIS occupations which require the worker to use a high level of ability to coordinate eye and hand movements. This does not mean, however, that some people do not possess high abilities.)
10.	WORKING WITH FINGERS	Low Level:	Truck Drivers Sanitarians
		Medium Level:	Small Engine Repairers Floral Designers
		High Level:	Physicians
11.	CHECKING ACCURACY	Low Level:	Security Guards Jewelers
		Medium Level:	Personnel Officers Mail Carriers & Postal Clerks Legal Assistants
		High Level:	None (NOTE: There are no CIS occupations which require the worker to use a high level of ability in checking accuracy. This does not mean, however, that some people doe not possess high abilities.)

12. USE OF WORDS	Low Level:	Railroad Laborers Chokersetters
	Medium Level:	Travel Agents Education Program Specialists
	High Level:	Freelance Writers Land Use Planners
13. USE OF NUMBERS	Low Level:	Child Care Workers Barbers
	Medium Level:	Radio and Television Announcers Office Machine Repairers
	High Level:	Architects Mathematicians & Statisticians
14. CATCHING ON TO THINGS	Low Level:	Textile Machine Operators Janitors
	Medium Level:	Licensed Practical Nurses Automobile Mechanics
	High Level:	University and College Teachers
15. SEEING DETAIL	Low Level:	Commercial Fishermen/Women
	Medium Level:	Construction Superintendents
	High Level:	Architects
16. PHYSICAL	Sedentary Level:	Telephone & Telegraph Operators Drafters Jewelers
	Light Level:	Office Machine Repairers Yarding and Loading Occupations Bartenders
	Medium Level:	Mail Carriers & Postal Clerks Child Care Workers
	High Level:	Nurse Aides & Orderlies Fire Fighters

17. EDUCATION AND TRAINING	No:	Petroleum Processing Occupations
	High School:	Fire Fighters Cashiers and Checkers
	One Year:	Cosmetologists
	Two to Three Years:	Dental Hygienists
	Four Years:	Librarians Foresters
	Any:	Optometrists
18. BEGINNING WAGE	1500+:	Railroad Engineers Plumbers
	1250 - 1500:	Lumber Graders and Inspectors Pharmacists
	1000 - 1250:	Public Administrators Parole and Probation Officers
	700 - 1000:	Caseworkers Registered Nurses
	Minimum:	Laundry and Dry Cleaning Workers Groundskeepers and Gardeners
19. WORK SETTING	Indoors:	Railroad Engineers Flight Attendants
	Outdoors:	Commercial Fishermen/Women Roofers

QUEST COMMANDS

Because QUEST is a searching process rather than a test, you will want to be familiar with the QUEST commands and how they enable you to experiment with the QUEST list. These commands, listed on page 28 of the User's Handbook, allow users to monitor the length of their lists, find out why certain occupations were not on their lists, evaluate the effect of various responses, and re-evaluate and change answers. Their use can lead to increased user satisfaction and a better understanding of the occupational decision-making process.

HOW MANY - Encourage the use of HOW MANY when:

- The user wants to know how many occupations are left on his or her list;
- The user wants to know how many occupations will be eliminated by a certain response (the user should ask HOW MANY right before and after entering the response);
- The user is entering mostly non-eliminating responses (YES, NP, NS) and needs to be more definite in his or her answers; or
- The user is interested in getting a list before completing all of QUEST questions and wants to know how long the list will be.

BACK UP - Encourage the use of BACK UP when:

- The user wishes to change his or her response to the last question answered; or
- The user's last response caused him or her to run short of occupations and he or she wishes to change the response.

LIST - Encourage the use of LIST when:

- The user wants to know what occupations remain on his or her list;
- The user wants to know which occupations were eliminated by a certain response. Instruct the user to type LIST before and after entering the response (after getting the first list, the user should type FINISH to return to the questionnaire); or

LIST (continued) - The user wants to know what occupations have a particular characteristic, e.g., have entry wages of $1,500 per month or above. (Get into BATCH QUEST, answer question #18 with 1500, type LIST. A similar process may be used with other questions.)

WHY NOT __(occ #)__

- Encourage the use of WHY NOT when:

  - The user wants to know why a particular occupation was eliminated from his or her occupational list.

  - The user needs assistance in knowing which responses to change in order to lengthen his or her list; or

  - The user wants to follow a particular occupation throughout QUEST to see if it is still on his or her list or to see what answers eliminated it.

CHANGE - Encourage the use of CHANGE when:

  - The user wants to change answers to questions he or she has already answered;

  - The user has run out of occupations on his or her list; or

  - The user has a large number of occupations on his or her list and wishes to make some responses more selective.

BATCH QUEST - BATCH QUEST may be used to input questionnaire responses rapidly, in any order.

BATCH QUEST is used in several learning activities to allow the user to see how a particular response affects the occupational list. By inputting a single response, users can see how many occupations are eliminated by that response independent of other responses.

FINISH - Encourage the use of FINISH when:

  - The user wishes to finish answering the questionnaire. The program will print the first unanswered question, then continue through to the end of QUEST.

  - The user has answered a question or several questions in BATCH QUEST and wishes to complete the questionnaire.

  - The user has asked for a LIST, typed WHY NOT for an occupation or has left the questionnaire to get occupational information and wishes to finish answering the questionnaire.

ROLE OF SITE COORDINATOR

1. Communicate with CIS staff on problems encountered in the use of the system and suggest improvements.

2. Conduct orientation for faculty and staff who were not included in the in-service training session.

3. Distribute "Activities" to appropriate instructional staff.

4. Develop and implement a plan which assists the guidance and instructional staff in making optimal use of CIS with their clients and/or students.

5. Train clerical or student aides to assist users at the terminal.

6. Develop a thorough understanding of the system and how its components work together. This should at least include: (a) reading this handbook; (b) reviewing the CIS information files; and (c) completing the new QUEST and obtaining a QUEST List by using the needle-sort or computer terminal.

7. Maintain an adequate supply of materials. Order materials as needed from CIS and obtain User's Handbooks from your regional career education coordinator. Distribute materials within the institution or agency. Update the Implementation Handbook as additions are received from CIS.

8. Keep all CIS materials current and up-to-date. Recycle or throw away all old, white User's Handbooks.

9a. Computer Users: Display log-in procedures in a prominent place on or near the computer terminal. Personally log in to verify accuracy of procedures. Maintain an adequate supply of paper and ribbons (if used) for the terminals.

9b. Needle-Sort Users: Develop a good means of making the CIS needle-sort conveniently available by implementing a check out procedure and/or designating a portion of the career center for needle-sort use.

10. Publicize and promote the use of CIS within the institution and community (see "Publicizing CIS," page III-9).

11. Integrate CIS with existing school or agency resources.

12. Know your local CIS cadre member and what he or she can do for you (see "Where to Get Help When You Need It," page III-31).

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Career Information System

STANDARDS FOR USE OF THE CAREER INFORMATION SYSTEM

The Career Information System (CIS) has the responsibility for providing practical means of direct access to current labor market and educational information in forms which are meaningful to individual students and clients and for encouraging integration of such information into schools and social agencies. Two of the methods available through CIS are the computerized version and the manual Occupational Needle-Sort System.

Both systems are good tools, but, like most tools they are designed to do a particular kind of job. This set of "Standards" is intended to help user schools and agencies use the System appropriately and to plan uses that will complement their other activities.

The purpose of the Career Information System, as the name implies, is to make occupational and educational information more accessible for career exploration. To achieve this end, the CIS;

—utilizes delivery systems that can be operated by inexperienced students and other individuals. Anyone who can follow a simple set of instructions can operate the system.

--updates information immediately as new or revised data become available.

--provides in-service training to coordinators in sponsoring agencies.

--establishes a statewide cooperative to reduce costs and insure quality information to individual schools and agencies.

The delivery system consists of several semi-independent components, so they have a certain built-in flexibility to adapt to different user needs and different institutional resources. The basic components are:

QUEST: Helps users identify occupations to explore and helps them locate appropriate types of information about occupations. (Computer and needle-sort versions available.)

DESCRIPTION: Brief, 300-word summaries about each of the occupations in the System covering 95 percent of the area's employment and some not found locally (teletype and pre-printed printouts are available).

PREPARATION: Describes ways to prepare for occupations.

PROGRAMS OF EDUCATION AND TRAINING: Describes all types of educational programs and lists programs in all types of post-secondary educational institutions (teletype and pre-printed printouts are available).

SCHOOLS: Present comparable data about services and costs of two- and four-year and proprietary post-secondary educational institutions (teletype and pre-printed printouts are available).

CLUBS: Lists career Explorer posts and Junior Achievement organizations.

VISITS: Gives the names of people for personal discussion about their occupation (available only in areas with local sponsors).

The System has been systematically tested in schools, social agencies and shopping centers and is now in widespread use in educational institutions. (Copies of the individual evaluation reports are available on request.)

Among other things, these tests and operating experiences indicate certain rules for effective use of the System.

Rules for System Use

1. The following table indicates ways in which System components can be used to meet particular needs. Prospective user institutions should analyze their needs to determine which purposes they want the System to serve.

USES OF CIS COMPONENTS

TYPE OF USE	Principal Component	Other Required Components	Optional Additional Components
1) Identification of Occupations for Exploration	QUEST	DESCRIPTIONS BIBLIOGRAPHY PREPARATION	VISITS CLUBS
2) Introduction to Occupations	DESCRIP-TIONS	BIBLIOGRAPHY PREPARATION	VISITS CLUBS
3) Introduction to Educational & Training Opportunites	PROGRAM	SCHOOLS PREPARATION DESCRIPTIONS	VISITS CLUBS BIBLIOGRAPHY
4) Counselor's Reference to Selected Career Materials	BIBLIOGRAPHY		DESCRIPTIONS PROGRAMS SCHOOLS
5) Post-Secondary Schools Informa-tion	SCHOOLS		PROGRAMS

The requirements listed in the preceding table are based on experience which has shown, for instance, that the QUEST questionnaire and list of occupational titles should not be used by itself. The questionnaire contains several pertinent occupation selection criteria, but other information, for instance job opportunities and licensing requirements, is essential to a sound occupational choice. Users must have access to and be encouraged to use some additional material--descriptions, books, visits, etc. -- to get information about the occupations they want to explore. Any institution using the QUEST part of the System must plan to utilize at least the DESCRIPTIONS, BIBLIOGRAPHY, and PREPARATION statements.

2. Batch processing of the QUEST questionnaire, whereby students receive only a printout of their QUEST list without an opportunity to make CHANGE, inquire WHY NOT, and immediately retrieve descriptive information about the occupations, is not authorized. A school or agency that desires to use this process should obtain prior authorization from the CIS Director of User Serivces.

3. Institutions should incorporate the System into ongoing courses and counseling practice, wherever appropriate and feasible.

It is advantageous, though not required, that they also make the System available for independent student/client use. Experience has proven that the System receives effective use when it is open to independent client/student usage, but its resources should also be integrated into ongoing instructional and couseling programs. A CIS publication, Keeping It Going -- a handbook for implementing The Career Information System, is available to aid in this process.

4. In-service training of staff is a prerequisite to use of the System. Effective use of the System requires an understanding of: System components, sources and use of information, mechanics of System use, and discussion of System applications within the particular setting. Staff who will use or be responsible for the use of the System in individual schools and agency offices must attend a training program which has been approved by the CIS.

5. Each user institution should designate one person as the coordinator for the institution. This will provide a contact point for communication between the institution and the CIS staff.

6. Current local, regional, and national occupational and educational information is at the heart of the System. Providing inaccurate or outdated information is a serious misuse of the System and a disservice to people. User schools and agencies must support research costs of CIS, which operates the information maintenance program for the System. (Design of the System was financed by various grants, so user agencies are not charged for any of the initial development costs. However, operating costs must be borne by user institutions.) These costs will include:

For the Computerized Career Information System	For the Occupational Needle-Sort System
- CIS Services -	
I. appropriate printed materials (user's handbooks, Implementation handbook, etc.)	I. appropriate printed materials (user's handbooks, Implementation handbook, etc.)
II. share of updating costs (continuous information maintenance and system modifications)	II. share of updating costs (continuous information maintenance and system modifications)
III. agency staff training and program evaluation	III. agency staff training and program evaluation
- Delivery Devices -	
IV. operating costs (computer terminal rental or purchase, computer time charge) installation telephone and connection	IV. rental of needle-sort cards, box, and needle; DESC, PROG, and SCHOOLS printouts

7. CIS materials are copyrighted and remain the property of the Oregon Career Information System. They may not be duplicated by user agencies without the written approval of the CIS Director.

8. User agencies must provide adequate delivery devices to serve their clientele. Experience indicated that one terminal per 1200 users and one needle-sort per 200 users are optimum.

9. Both computerized and needle-sort systems are still being modified, and new applications may be tested. Experimentation is encouraged, provided it is conducted with evaluation and with approval by CIS staff. However, the above requirements have proven to be essential, and any institution using the systems must observe these requirements unless other arrangements are made in advance. Unauthorized departure from these standards will be viewed as a breach of the agreement and will result in termination of System availability.

Revised 11/71
Adopted by CIS Board 11/15/71
Revised and Adopted 8/73
Revised 9/75
Revised 7/76
CAREER INFORMATION SYSTEM

PUBLICIZING CIS

The quantity of use CIS receives is closely related to how well the System is publicized. In addition, parental and community familiarity with the System tends to encourage student use as well as contributing to a base of strong support for career education activities.

CIS staff will be glad to assist you in identifying useful strategies for promoting system use. Sample posters and brochures, which have been used successfully at other institutions, are available by writing CIS. Some suggestions for promoting CIS use follow:

1. Locate the System in a conspicuous spot. Experience shows that spectators become users.

2. Encourage local media to do on-the-spot coverage of students or clients using CIS. The computer terminal has strong intrigue to viewers and readers and consequently is of interest to the media.

3. Students in a communication and/or graphic arts class might develop and implement a promotional campaign for CIS and other career center activities. This might include students addressing local civic or service organizations, making vocational posters, etc.

4. Displays of products manufactured locally, or other local occupations or businesses might be related to job descriptions from the CIS files.

5. Articles can be published in school newspapers or the house organ. Articles appearing in school newspapers are often most effective when written by students.

6. Set up a demonstration of CIS at a PTA meeting. Research indicates that CIS stimulates parent-student interaction regarding educational and occupational goals.

7. Incorporate publicizing CIS into the information and orientation activities associated with registration. Some schools have used CIS to facilitate academic planning by requiring all students in a certain grade to use CIS.

8. Provide students with their own User's Handbooks which contain their name and a time they are to visit the career center. This might also be coordinated with orientation activities.

9. Consider using CIS to provide a community service by making it accessible to adults through the community schools, continuing education or by taking CIS directly to shopping centers, fairs, and other public gathering places.

GETTING THE FACULTY INVOLVED

A useful way to maximize the value of CIS is to incorporate it into on-going instructional activities. Teachers are always looking for new and inventive ways to explain their subject matter and CIS can provide that tool.

There are many ways the site coordinator can promote infusion of CIS into the school's curriculum. Two popular methods are faculty presentations and strategically distributing the learning activities.

FACULTY PRESENTATION

Before making your presentation you might want to contact CIS to obtain samples of materials used during CIS demonstrations and in-service training sessions. You may also want to speak with a CIS staff person who can share with you some fine points of explaining CIS to instructional faculty.

Below are some steps you might consider taking when making a faculty presentation. One additional item to keep in mind is the length of your demonstration. CIS staff suggest that thirty to forty minutes is sufficient time to implement the following program.

Step One - Several weeks prior to the staff presentation, CIS User's Handbooks should be distributed to all staff who will be attending the faculty presentation. A good time to do this is during a staff meeting preceding your presentation. Have the staff respond to the twenty-one QUEST questions and identify three occupations in which they have interest. The staff may also be asked to write the educational programs and/or schools in the handbook about which they want information. The handbooks should be returned to the CIS coordinator as soon as they have been completed (or they can be collected at the meeting).

Step Two - Utilizing "BATCH"*, the QUEST questions should be processed in order to obtain a QUEST list for each staff member. An occupation should be accessed along with an appropriate preparation statement, program of study and training, and school information. The computer printout along with their User Handbook should be returned to each staff member prior to the presentation with instructions to bring their printout to the meeting.

Step Three - Study, modify, and implement the following sample structure for a faculty presentation:

- Introduction of CIS coordinator by an administrator with some statement regarding administrative commitment.
- Overview of the System, explaining each component carefully and accenting the current and localized nature of the information.

- Walk staff through the use of CIS by having them refer to their printouts as you explain the process. Share with them ways in which you interact with the students while helping them interpret their printouts.
- Outline for the staff how CIS is currently used in the school's career guidance program.
- Answer any questions which the staff might have and offer a clear and concise summary of your presentation.
- In closing, encourage all staff to get a "hands-on" experience with CIS by distributing a form with times at which they can use the System. The presentor should also explain procedures for using the system at other times. (It should be noted that considerable experience at CIS suggests that there is no substitute for the "hands-on" experience.)

DISTRIBUTING LEARNING ACTIVITIES

You may find that the faculty meeting will make an excellent place for distributing the activities included in this handbook (see Section V). The coordinator should be warned, however, to be careful of avoiding CIS "over-kill" by presenting too much information on CIS at one time.

Alternatives to distributing the activities at the faculty presentation (and ways to reinforce the use of the activities) might include:

- Visiting individual classes and demonstrating a particular activity.
- Attending departmental or area staff meetings and distributing the activities to teachers.
- Notify CIS staff of regional or state-wide subject matter area meetings as you hear of them. A CIS staff member can then arrange to have packets of activities distributed.

CIS AND THE GUIDANCE PROCESS

An important advantage of CIS is the way in which it enhances the career guidance process. Some things to consider when using CIS in this way are as follows (you may want to add to this list):

1. Always remember that the System delivers information; it does not counsel students and clients. It is not programmed to react to the user with a number of counselor-type responses simulating a counseling interview.

2. The System tends to introduce more order into the occupational decision-making and counseling process. The twenty-one items in QUEST provide a useful structure for the initial counseling interview.

3. The counselor should spend some time thinking through ways to use occupational and educational information in career guidance. Special attention should be given to their own method for using information and how it might be enhanced by CIS.

4. Many counselors like to discuss each topic in the Occupational Description and Program files with the individual. For example, in the Occupational Description file, the topic of duties needs to be discussed to determine if the individual is actively interested in performing the required tasks of the occupation. Such discussion encourages the individual to consider the occupational and educational information in terms of his or her own interests, abilities, and skills.

5. The "What Next?" prompt gives the user the opportunity to request additional information, change QUEST answers, or stop using the system. Guidance at this step may be useful. See pages 28 and 29 of the User's Handbook for a list of possible commands.

6. Students must be encouraged to be patient when the terminal goes down. Let the students know and realize that it will be available to them at a later date when they have a need to re-evaluate or to make some new decisions regarding their career planning. Careful handling of this situation will assure that the counselor is not blamed for the terminal's failure.

7. Efforts should be made to integrate the System into the institution's planned program for assisting students and clients in their career decision-making. Guidance and counseling goals should be articulated by school and agency staff; the computerized and needle-sort systems are part of the activities that will be provided to accomplish these goals.

UTILIZING PARAPROFESSIONALS AND STUDENT AIDES

Experience strongly suggests that users get the most out of CIS when someone is available to assist them when using the System. It is frequently impractical, however, for the counselor to work directly with the student when he or she is using CIS. One popular solution to this problem is the use of paraprofessionals and/or student aides.

There are three critical stages associated with implementing a program employing career aides: selecting, training and supervising. When used properly, aides can make marvelous contributions to an institution's guidance program; however, when they are poorly selected or hastily trained the results can be counter-productive.

What follows are some considerations the site coordinator and guidance staff should remember when employing aides.

SELECTING

In general, aides should be selected for their availability, their ability to work with people, and their interest in assisting people with finding career information.

Chemeketa Community College in Salem has developed an exemplary career aide program. In addition to being interviewed by the head counselor and paraprofessional the career aide must: (1) like people; (2) work long hours; (3) take CIS off campus to out-reach centers; (4) be prepared not to study on the job; (5) talk with three student facilitators and get their perceptions and feelings; and (6) ask for references on campus or from teachers.

Serious considerations should be given to those students who are considering careers in counseling or the social services. The experience as a career aide should be useful in helping these students think through their career goals while simultaneously providing a needed service.

TRAINING

Another critical component of a successful career aide program is the effective training of program participants. A "Student Aide/Paraprofessional Training Package" follows this section (pages III-17 through III-20). You will also find a "Career Aide Worksheet" (pages III-21 through III-22) that serves as a useful method for assessing the aides' understanding of the CIS information files.

Coordinators are encouraged to adapt the materials to meet the specific needs of their program. However, these materials have received considerable field testing and have proven successful.

SUPERVISING

The concepts and skills developed in the training stage of your career aide program should be continually reinforced. Over time, career aides will require increasingly less supervision. It is important to remember, however, that this is frequently a totally different occupational experience for program participants. The lead counselor or paraprofessional should be available on a regular basis to answer questions and offer assistance.

Some ideas which have proved useful in supervising career aides are listed below:

1. Promote a sense of professionalism among the aides.

   - Give them titles such as "student facilitators," "career center associates," "career information specialists";
   - Provide a role model accenting professionalism;
   - Encourage them to read selected articles in your professional journals or newsletters;
   - Share with them institutional policy as it is set and, if possible, involve them in the process.

2. Be particularly clear about what is expected of the aides.

3. Provide a schedule of times they are to be working in the career or guidance center.

4. Provide regular and specific feedback regarding their performance.

A successful career aide program will exercise concern in the selection, training, and supervision of the paraprofessional. If the recommendations outlined above are followed, your institution should be able to implement an innovative and constructive program that will provide people with valuable training and experience while maximizing available resources.

STUDENT AIDE/PARAPROFESSIONAL TRAINING PACKAGE*

OBJECTIVE

To train students to assist people in the use of CIS materials and the computer terminal.

METHOD

Each student in training will meet with the supervising paraprofessional or counselor on a regular basis until Step One and part or all of Steps Two and Three are completed. The Trainer will be responsible for training the aide on a one-to-one basis using the methods outlined below.

Step One

Purpose: To teach aides about the basic operation of the computer terminal.

Process: The Trainer will explain and then demonstrate each procedure. The aide in training will then attempt each procedure. The Trainer will check off each operation when successfully completed. The aide may also want to study the QUEST materials found on pages II-4 through II-33.

( ) On-line

( ) Log-in

( ) QUEST - include

- ( ) List
- ( ) Why Not
- ( ) Procedure for changing answers

( ) INFO	( ) BIB
( ) DESC	( ) VISIT
( ) PREP	( ) CLUBS
( ) PROG	( ) ATTR
( ) SCH	

* Adapted from Chemeketa Community College Student Facilitator Program

Step Two

Purpose: To enable aides to effectively assist people using CIS in specific situations.

Process: The Trainer will follow the procedure outlined for each situation and check it off when completed. Each situation may be a separate training session.

( ) *SITUATION A*

Trainer asks: "What if the person using CIS receives no occupations?"

Trainee: Responds

Trainer: Evaluates response, gives additional suggestions if appropriate..

Together: Discuss reasons why situation might occur; how the person using CIS might feel in that situation.

( ) *SITUATION B*

Trainer asks: "What if the person using CIS receives 150 occupations?"

Trainee: Responds

Trainer: Evaluates response, gives additional suggestions if appropriate.

Together: Discuss reasons why situation might occur; how the person using CIS might feel.

( ) *SITUATION C*

Trainer asks: "What if the person using CIS gets a list which contains many occupations that he or she feels are inappropriate?"

Trainee: Responds

Trainer: Evaluates response, gives additional suggestions if appropriate.

Together: Discuss reasons why the situation might occur; how the person using CIS might feel in that situation.

Step Two (continued)

( ) *SITUATION D*

Trainer asks: "What if the person using CIS says, 'I want to be a professional baseball umpire (or football referee), but I can't find it in the list of occupations.'"

Trainee: Responds

Trainer: Evaluates response, gives additional suggestions if appropriate.

Together: Discuss reasons why situation might occur; how the person using CIS might feel in that situation.

Step Three

Purpose: To assist aides in identifying referral methods and referral sources.

Process: Aides should first be reminded that there are limits upon their training and experiences which restrict the services they can provide and that frequently the best service they can offer is to refer the client to a member of the professional guidance staff. The trainer will follow the procedures outlined for each situation and check it off when completed. Each situation may be a separate training session.

( ) *SITUATION A*

Trainer asks: "What if a student says, 'I need to find a job because I'm going to flunk out of school. Can you help me?'"

Trainee: Responds

Trainer: Evaluates response, discusses referral process, and, if appropriate, gives additional suggestions.

Together: Discuss reasons why this situation might occur; how the person seeking help might feel in this situation.

( ) *SITUATION B*

Trainer asks: "What if the person using CIS continually makes reference to their parents' recent divorce and how it has caused them to not care about attending college next year?"

Trainee: Responds

Step Three (continued)

Trainer: Evaluates response, discusses referral process, discusses client confidentiality, and, if appropriate, gives additional suggestions.

Together: Discuss reasons why this situation might occur; how the person using CIS might feel in this situation.

( ) *SITUATION C*

Trainer asks: "What if the person using CIS continually responds with "no preference" or "not sure" when responding to the questions in QUEST?"

Trainee: Responds

Trainer: Evaluates response, discusses referral process, and, if appropriate, gives additional suggestions.

Together: Discuss reasons why this situation might occur; how the person using CIS might feel in this situation.

CAREER AIDE WORKSHEET

Instructions: Answer the following questions as completely as you know how.

1. How can I find out what schools in Southern Oregon offer coursework in Beautician Training?

_____

2. How can I obtain a list of the occupations in the Health Services occupational group?

_____

3. If Photographer isn't among the occupational titles on my QUEST list, how can I find out which answers eliminated it?

_____

4. After obtaining a QUEST list, I decide that I want to increase my beginning wage from $700 to $1000. How can I do it and get another QUEST list?

_____

5. How can I find out what high school subjects would be appropriate in order to become a Registered Nurse?

_____

6. How can I obtain the name of a Land Use Planner with whom my students can discuss that occupation?

_____

7. Using CIS, I found out how much it would cost me, as a single student, to go to Willamette University and live in the dormitory. However, I only have one-half as much money as I need to attend. How can I find out what kind of help Willamette University can provide and how much it might be?

_____

8. How could I find out what kind of coursework is required in order to become a Therapist?

_____

9. How could I compare the procedures for applying for financial aid for Treasure Valley Community College, Eastern Oregon State College, and Oregon Institute of Technology?

_____

10. I would like the students in my English class to prepare a research paper about one or more occupations in which they might be interested. I would like them to use CIS as a major resource. Where could I get some help in preparing this activity?

_____

11. Where can I get a list of the kinds of CIS information and how to obtain it?

_____

CAREER RESOURCE CENTERS

A Career Resource Center can be a focal point for career related activities in an institution. The center should be a clearinghouse for career related materials and can be staffed by guidance staff, paraprofessionals, and/or student aides who are trained to use the resources available. It should be located in a central place where students and teachers will feel free to stop.

Frequently guidance and career materials are found in various counselors' offices and libraries. A central location affords the following advantages:

1. Makes scarce materials available to more people;
2. Permits better organization and display of career related materials than is possible in someone's office;
3. Permits use of more media;
4. Provides more concerted selection and maintenance of career materials; and
5. Provides a place for community resources and school to meet.

If you have set up a career center but it is not being widely used, consider:

1. Changing the location;
2. Adding posters to catch people's interest;
3. Training student aides to better meet students' needs and to know when to refer students to counselors or others; and
4. Using it as the site for career related activities and speakers.

If you do not presently have a career center in your school, you could visit schools which have already set up successful career resource centers to gain ideas from them. There are several helpful articles about organizing career centers. Call or write the Career Information System office for copies. Resources such as those listed in the Additional Resources section of this handbook will help you stock the center.

Program Name: CIS STATISTICAL PACKAGE

Access Procedures*:

Log in to the computer as usual, using your account number and password.
Type: GET-*STATPG return
RUN return
The program will request your identification for use in the report title; enter the name of your school or agency as you want it to appear on the report. NOTE: This entry only provides a title for the report; it does not determine what data will be reported. The program will report usage of your account number as entered during LOG-IN.

Program Features:

STATPG is a summary of how CIS is being used at your site. It accumulates no records on individuals, but compiles usage data for account numbers. STATPG will produce reports on your account number from the time it was initiated (September) until the time you request a report. You will probably find the Coordinator's Report sufficient for most purposes, but you can also obtain the File Management Package which contains more detailed usage data. The Coordinator's report takes about 5 minutes to print out; the File Management Report takes from 5 to 45 minutes to print out.

Coordinator's Report - Content and Definitions:

Introduction: Amount of Usage
Data Source: A "use" is counted when HELLO, BATCH, or STOP is entered, since these are the usual ways a new person starts using CIS. Time reports total computer connect time charged to your account number.

"COMPONENTS USED": A summary of component usage.
Data Source: This section reports the number of times each system key word (e.g., QUEST, WHY NOT, PREP, etc.) was entered. NOTE: LIST includes the number of times lists were requested; of course, lists were also produced each time QUEST was completed.

"TOP TEN OCCUPATIONS": A list of the ten occupations most requested by your users with the number of inquiries for each of those occupations.

"TOP TEN PROGRAMS": A list of the ten programs most requested by your users with the number of inquiries for each of those programs.

"TOP TEN SCHOOLS": A list of the ten schools most requested by your users with the number of inquiries for each of those schools.

The Coordinator's Report shows the kind of interests users have in education, training and occupations. Consider obtaining reports monthly and providing copies to other interested staff.

NOTE: The terminal pauses after each section title is printed. You can skip to the next section by punching the RETURN key during the pause. You can terminate the program at any time by punching the BREAK key. When the terminal prints STOP, type in BYE and punch the RETURN key.

* STATPG is not presently available for all sites.

OCT 4, 1977 CIS STATISTICS FOR YOUR SITE NAME
SINCE SEP 8, 1977

CIS WAS USED 126 TIMES DURING THIS PERIOD
TIME USED: 88 HOURS 28 MINUTES
AVERAGE TIME PER USE: 44. MINUTES

COMPONENTS USED

ATTR	BACKUP	BATCH	BIB	CHANGE	CLUB	DESC
1	5	6	7	37	8	236
EDUC	EMPLY	FINISH	HELLO	HELP	HOW-MANY	INFO
8	8	2	185	2	2	7
LIST	PREP	PROG	QUEST	SCH	START-OVER	STOP
26	66	57	64	22	8	9
VISIT	WHY-NOT					
1	121					

TOP TEN OCCUPATIONS

OCC#	TITLE	INQUIRIES
84148	COUNSELORS	16
98668	PERFORMING ARTISTS	10
84598	CHILD CARE WORKERS	10
23668	INTERIOR DESIGNERS & DECORATORS	10
84288	SOCIAL SERVICE AIDES	9
44428	CLOTHES DESIGNERS-PATTERNMAKERS	9
47848	PHOTOGRAPHERS	8
16868	COMPUTER OPERATORS	8
14528	RECEPTIONISTS	8
11848	BUYERS AND PURCHASING AGENTS	8

TOP TEN PROGRAMS

PROG#	TITLE	INQUIRIES
275	AVIATION MAINTENANCE	3
274	FLIGHT TRAINING	3
239	EDUCATION AIDE PROGRAMS	3
631	APPRENTICESHIP PROGRAMS	2
568	CORRECTIONS	2
565	SOCIAL SERVICE	2
421	LAW	2
374	PHYSCIAL THERAPY	2
318	PRINTING AND GRAPHICS	2
316	THEATRE & DRAMA	2

TOP TEN SCHOOLS

SCH#	TITLE	INQUIRIES
21812	UNIVERSITY OF OREGON	6
21819	OREGON STATE UNIVERSITY	4
21113	SOUTHERN ORE. STATE COLLEGE	3
21221	MOUNT ANGEL SEMINARY	2
49723	BASSIST INSTITUTE	1
49712	FLIGHTCRAFT, INC.	1
49213	FLYWAYS, INC.	1
22564	LANE COMMUNITY COLLEGE	1
22712	PORTLAND COM- MUNITY COLLEGE	1
22789	MT. HOOD COM- MUNITY COLLEGE	1

DONE

File Management Report - Access Procedures:

You may access the long File Management Report by entering "XXX" before the Institution name.

Example: ENTER USER INSTITUTION ID FOR REPORT TITLE:
? XXX STARBORN HIGH

When the Coordinator's Report completes, the following message will type out:

WHAT SECTIONS AND NUMBERS: (IF YOU NEED HELP TYPE: HELP).
?

Valid responses include the following:

ALL
OCC (or) OCC + range of occupation numbers (e.g., OCC 16840-65000)
PROG (or) PROG + range of program numbers (e.g., PROG 279-317)
SCH (or) SCH + range of school numbers (e.g., SCH 49102-99807)
TOPIC (or) TOPIC + range of topic numbers (e.g., TOPIC 88-90)
QUEST - print QUEST package

You may request any combination of sections (e.g., PROG 211-315, QUEST) or, if a response is not entered within one minute, all sections in the File Management and QUEST packages will print.

File Management Report - Content and Definitions:

(OCC) "Occupational Usage": Prints out a complete listing of CIS occupations in numerical order and lists the number of times each occupation was left on the QUEST lists, and the total number of inquiries by occupation. If no QUEST questions are answered, all occupations are shown as remaining on the user's list.

(PROG) "Program Usage": Lists the program number, title, and the number of inquiries for each program accessed.

(SCH) "School Usage": Lists the school number, title, and number of inquiries for each school accessed.

(TOPIC) "School Information Topics Requested": Lists topic number, topic heading and number of inquiries for each school topic accessed.

(QUEST) "Number of Questions Answered": Summary of the number of QUEST questions answered by users at your site.
"Frequency of QUEST Responses": Users' responses are tabulated for each possible response for each QUEST question.
"Number of Occupations Left": Lists the length of QUEST lists. It reports the number of occupations remaining on all QUEST lists, including lists where fewer than 24 questions were answered.

File Management Package

Access Procedures:

```
GET-*STATPG
RUN
STATPG

ENTER USER INSTITUTION ID FOR REPORT TITLE:
?XXX YOUR INSTITUTION ID
```

After the Coordinator's Report prints out, the File Management Package will print.

```
WHAT SECTIONS AND NUMBERS? (IF YOU NEED HELP TYPE: HELP).
? '
HELP
VALID RESPONSES INCLUDE:

ALL
OCC (OR) OCC + RANGE OF OCC NUMBERS (EG: OCC 16840-65000)
PROG (OR) PROG + RANGE OF PROG NUMBERS (EG: PROG 279-317)
SCH (OR) SCH + RANGE OF SCH NUMBERS (EG: SCH 49102-99807)
TOPIC (OR) TOPIC + RANGE OF TOPIC NUMBERS (EG: TOPIC 88-90)
QUEST - PRINT QUEST PACKAGE

WHAT SECTIONS AND NUMBERS? (IF YOU NEED HELP TYPE: HELP).
?
OCC 16840-16880,PROG 60-100,SCH 21710-21716,TOPIC 69-80


                SUMMARY OF OCCUPATIONAL USAGE

OCC#   TITLE                          LEFT ON LIST  INQUIRIES  VISITS
16840  PROGRAMMERS & SYSTEMS ANALYSTS      131           6
16860  COMPUTER OPERATORS                  121           2
16880  KEYPUNCH OPERATORS                  122           2


                    PROGRAM FILE SUMMARY

 PROG#       TITLE                          INQUIRIES
   67    FISHERIES & WILDLIFE SCIENCES           1
   68    FORESTRY                                1
   81    ARCHITECTURE                            2


                    SCHOOL FILE SUMMARY

 SCH#         TITLE                          INQUIRIES
21710  LEWIS & CLARK                           2
21711  PACIFIC UNI- VERSITY                    2
21716  U OF O HEALTH SCIENCES CENTER - SCH     1


            SUMMARY OF SCHOOL INFORMATION TOPICS REQUESTED

TOPIC#  TOPIC                    INQUIRIES
 69     69 WOMEN'S STUDIES            2
 78     78 SPECIAL ADMISSIONS-        2

DONE
```

81

TROUBLE SHOOTING

Although CIS is programmed to be easy to use, problems can arise that will need your attention. The problems usually fall into three categories:

1. Computer or Terminal Problem

   If you are having difficulty logging in, check your log-in instructions and try again. If the computer does not respond, call your contact person at the computing center to see if the computer is working. If the problem is with your terminal, arrange to get it repaired.

2. Missing Data File

   If you receive a message which says "A DATA FILE IS MISSING," call your computing center and/or Naomi Stewart at CIS as soon as possible. The missing file contains CIS usage data for your site. The data can be re-entered by the computing center staff if they are contacted immediately. You may continue using CIS. The message should disappear the day after you call.

3. Information or Program Error

   CIS computer programs are tested before they are released for use and information updates are carefully proofed, but it is still possible for errors to sneak through. If you see or hear of a problem in the CIS programs or information files we would appreciate hearing from you.

   Fill out the bug report form found on page III-33 and send it to CIS. If possible, attach a printout showing the problem. This assists our staff in replicating and correcting the problem.

The following sheet, "Where to Get Help When You Need It:" lists people to contact for assistance.

Career Information System

WHERE TO GET HELP WHEN YOU NEED IT:

A list of information and people to contact when needs, questions, or problems arise to help keep CIS running smoothly

CAREER INFORMATION SYSTEM
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403
686-3872

REGIONAL CAREER ED. COORDINATOR

_____

Phone: _____

CIS CADRE MEMBER

_____

Phone: _____

CONTACT PERSON AT COMPUTING CENTER

_____

Phone: _____

PEOPLE FOR COORDINATORS TO CONTACT AT CIS, REGIONAL E.S.D., OR COMPUTING CENTER

Need or type of problem	Contact	Location
Materials (User's Handbooks, computer printouts, etc.); general questions.	Regional Career Ed Coordinator or _____	Regional E.S.D. CIS
Computer program problems; data file missing.	Naomi Stewart	CIS
In-service training; general questions.	Mike Neill or Jeff Wiles	CIS
Verify ID Code/Password.	_____	Computing Center
Trouble shoot computer-related problems.	_____	Computing Center

MATERIALS & MAINTENANCE OF TERMINALS

Item	Contact	Paid By
User's Handbooks	Regional Career Ed. Coordinator or Mary Wahlert, CIS	CIS
Teletype 33: -Paper and ribbons	Local stationery store Order 8-inch teletype paper and twinspool, nylon black ribbon.	User Institution
-Maintenance	Computing Center	Normal maintenance covered by present fees.
Teletype 43: -Paper	Moore Business Forms--local stores. Order single ply fan fold paper specifying dimensions required.	User Institution
-Ribbons	Teletype Corporation 5555 Tuohy Avenue Skokie, Illinois 60076 Dept. 2181-3 Order TP 430035 cartridge with ribbon.	User Institution
-Maintenance	Local telephone company. Verify that the problem is with the teletype before calling.	Normal maintenance covered by present fees.

Career Information System

Office of the Director
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403
(503) 686-3872

BUG REPORT

DATE:

SUBMITTED BY: PHONE:

SITE:

ADDRESS:

COMPUTER:

[ ] PROGRAM ERROR
[ ] INFORMATION ERROR
[ ] DOCUMENTATION ERROR
[ ] SUGGESTION
[ ] INQUIRY
[ ] FOR YOUR INFORMATION

PRIORITY:
[ ] HIGH
[ ] STANDARD
[ ] LOW

SHALL CIS FOLLOW-UP WITH USER?
[ ] YES [ ] NO

NAME: PHONE:

ADDRESS:

DESCRIPTION OF PROBLEM: (IDENTIFY SOURCE, FILE, AREA, CODE NUMBER, ETC. ATTACH PRINTOUT OR OTHER MATERIAL THAT DEMONSTRATES THE PROBLEM)

COPY ATTACHED
[ ] YES [ ] NO

- - - FOR CIS USE - - -

RECEIVED	ACTION PROPOSED:
TO RESPONDENT	
TARGET	
DUE	
VERIFIED	

GLOSSARY OF TERMS

APPLICANT	A person seeking employment or admission to a training program.
APPRENTICE	A worker who is learning, according to a contractual agreement, a recognized skilled craft or trade. Apprenticeships require one or more years of training; on-the-job experience is supplemented by related instruction.
APTITUDES	Specific capacities or abilities required of an individual in order to facilitate the learning of some task. The Aptitude Section in the occupational description describes native or innate qualifications which are necessary to perform a job: physical capacities, mental abilities of various kinds, temperaments and interests.
ATTR	The computer file containing the coding on attributes for each occupation in the system based on the twenty-one item QUEST questionnaire. Type in "ATTR" and the occupational code number to get a list of the answers that would keep the particular occupation on the QUEST list.
ATTRIBUTE	Characteristics of occupations. They are used in QUEST to identify occupations for career exploration.
BALANCE	Approximately equal supply and demand of workers and jobs (see OUTLOOK).
BIB	The computer file containing bibliographic references to supplement the information contained in CIS.
CAREER	The totality of work one does in his or her lifetime.
CENTRAL OREGON	Jefferson, Crook, and Deschutes counties.
CLUBS	The computer file listing organizations which provide opportunities for young people to explore careers (e.g., Explorer, Junior Achievement, and high school vocational clubs).
CLUSTER	A group of occupations which share a common, fairly specific function such as providing health services or administering an organization. Occupations within a cluster share a substantial core of skills and knowledge and are frequently interrelated by production process or work environment.

CURRENT EMPLOYMENT

The number of people working in a particular occupation. Whenever possible, the figure given in Current Employment includes self-employed as well as people working for wages and salaries. To help users compare an occupation's employment to total employment in the area, CIS uses the terms and definitions listed in the following table:

CIS TERM	% OF TOTAL EMPLOYMENT FOR THE AREA
VERY SMALL	Less than 1/50%
SMALL	1/50% to 1/10%
MEDIUM	1/10% to 1/2%
LARGE	1/2% to 1%
VERY LARGE	1% or greater

DESC

The abbreviation for "Description," the computer file containing occupational descriptions. By typing "DESC" and the occupational code number in the computerized version of CIS, the user can get a description of duties, list of specialties, work setting, hiring practices, and the current Oregon employment, wages and outlook. The same descriptions are available in the Occupational Printout Books.

DOT

Dictionary of Occupational Titles, a Department of Labor publication which defines about 20,000 occupations. Designed as a job placement tool to facilitate matching job requirements and work skills, the DOT uses interrelationships between job tasks and requirements to group occupations.

EASTERN OREGON

Morrow, Umatilla, Wallowa, Wheeler, Grant, Baker, Malheur, Harney, Lake, Klamath and Union counties.

EMPLOYEE

A person who works for another in return for financial or other compensation.

EMPLOYER

A person or establishment that employs people for wages or salary.

ENTRY WAGES

The amount of money a person entering an occupation without experience in the field can expect to earn. Entry wages may be stated in hourly, monthly or yearly rates.

FIELD EXPERIENCE	Educational programs which include practical experiences at community sites which are related to the student's academic program. For example, a counseling program may give students an opportunity to spend a term in a community agency which provides counseling services, or a sales program may give students credit for working in a retail store.
FIVE-DIGIT OCCUPATIONAL CODE	Code which refers to the description of a CIS specialty of a corresponding four-digit CIS occupation. CIS files contain limited information about specialties.
FORMAL TRAINING	Any training which includes some classroom instruction and leads to a degree or certificate (e.g., apprenticeship programs, two- and four-year college programs).
FUNCTION	A special duty or performance required of a person or thing in the course of work or activity. For example, the function of a Law Enforcement Officer is to protect and assist the public. The functional classification system used by CIS to group occupations classifies occupations on the basis of job characteristics or functions. It focuses on the dominant activity or central job duty, not on an overall skill level or some variable which is of little significance to some occupations.
GRADUATE PROGRAMS	Advanced academic programs, usually pursued after graduation from a four-year bachelor's degree program. Master's degrees are usually granted by colleges and universities after the successful completion of a fifth year of prescribed study. Doctoral degrees are usually granted after seven years of study (which includes four years of college study).
INFORMAL TRAINING	Training which teaches the necessary skills for a job, received while working rather than as part of a formal training program.
JOURNEYMAN	A worker who is able to perform all phases of a skilled craft and has fully served an apprenticeship in that trade or craft.
LANE	Lane county.
LIBERAL ARTS STUDY	College studies which include the arts, natural sciences, social sciences, and humanities, as distinguished from such applied studies as engineering, agriculture, and home economics.

LICENSE	Official or legal permission to do a specific thing. Proof of the permission is usually granted in the form of a document or card issued by a governmental agency. The licensing section in the occupational and preparation statements provides information about exams and/or fees required for licensing for an occupation, including qualifications for licensing, procedures for obtaining a license, and agencies approved to grant licenses.
LMI	Abbreviation for Labor Market Information about employment, the supply and demand for workers, wages, and other labor market facts.
MID-COLUMBIA	Hood River, Wasco, Sherman, and Gilliam counties.
MID-WILLAMETTE	Marion, Polk, Yamhill, Benton and Linn counties.
NORTH COAST	Tillamook, Clatsop, Columbia and Lincoln counties.
OCCUPATION	Jobs are identified as comprising an occupation when they exhibit like job duties. They can normally also be expected to perform at about the same level of difficulty or responsibility and to require about the same skills, knowledge and physical characteristics.
OCCUPATIONAL DESCRIPTION	See DESC.
OOH	Abbreviation for Occupational Outlook Handbook, a national occupational information handbook published yearly by the U.S. Department of Labor. It is available from the Government Printing Office.
OUTLOOK	The section of the occupational description which describes the relationship between supply (workers) and demand (jobs) for an occupation. "Balance" means the number of people seeking work in an occupation is equal to the number of job openings; "Surplus" means there are more people seeking work in an occupation than there are job openings; "Shortage" means there are fewer people seeking work in the occupation than there are job openings. This section also describes the factors which affect the occupational outlook.
PORTLAND	Clackamas, Multnomah and Washington counties in Oregon and Clark county in Washington.
PREPARATION	The education, training and experience required for employment in an occupation; also, relevant desirable preparation beyond minimum requirements. A preparation (PREP) statement can be obtained for any CIS occupation by typing "PREP" and the occupational code number (computerized CIS) or by referring to the Occupational Information printouts.

PRE-REQUISITE	A requirement for registration in a particular course of study. For example, a beginning course in psychology may be a "pre-requisite" to an advanced course. Some programs have a pre-requisite that the student be a high school graduate or have a G.E.D. to gain admission.
PRIVATE VOCATIONAL SCHOOLS	Schools which usually provide specialized programs in areas which directly prepare for occupations. These programs often are of short duration and concentrate on specific skills needed for immediate employment. Private vocational schools included in the Career Information System files are all licensed by the State Department of Education.
PROG	The abbreviation for "Programs of Study and Training," the computer file listing courses, degrees and schools for a particular area of study. The information is available by computer (type "PROG") or in the Programs of Study & Training printout book.
QUEST	A tool, in the form of a questionnaire, which people use to express their preferences about work and obtain the names of relevant occupations to explore.
REVIEW PANEL	The employers, workers, instructors, labor market intermediaries and other experts in specific occupations who examine and validate each of the CIS occupational descriptions and preparation statements. The review panels, composed of about 5-7 people, are one means of insuring the accuracy of the information delivered by CIS.
SCH	The abbreviation for "School," the computer file containing information about accredited and licensed postsecondary institutions in Oregon.
SHORTAGE	Fewer workers than jobs (see OUTLOOK).
SKILLS	The learned abilities and knowledge which must be developed for successful job performance.
SPECIALTY	Occupational specialties can be characterized as jobs within an occupation which, while exhibiting like job duties to other jobs within the occupation, require a somewhat specialized application of the occupation's skills and knowledge. For example, a "mechanical drafter" is a specialized kind of drafter. The Specialty section in the occupational description file lists the DOT titles and nine-digit codes for the major specialties included within each occupation.

SPECIALTY DESCRIPTIONS	Five-digit occupational descriptions which provide additional information about a specialty of a corresponding four-digit occupation.
SOUTH COAST	Coos and Curry counties.
SOUTHERN OREGON	Douglas, Josephine and Jackson counties.
SURPLUS	More workers than jobs (see OUTLOOK).
TECHNOLOGY PROGRAMS	Programs in the applied sciences which provide direct preparation for occupations. Examples of these types of programs are food technology, engineering and welding.
TRANSFER PROGRAMS	Programs at the associate degree level, usually established at community colleges, consisting of two years of college work of a type normally transferable to institutions which grant bachelor's degrees. These programs are accepted by many four-year institutions as the total completion of the first two years of a bachelor's degree program, including all general education requirements.
WAGES	Straight-time compensation rates (before deductions) for specific occupations. Excludes fringe benefits such as insurance, vacation and retirement plans. May be stated in hourly, monthly or yearly rates.
WORK WEEK	The number of hours worked or required to be worked in one week. "Full-time" is considered 35 hours or more per week.
UNION	An organization of wage earners formed for the purpose of serving their class interests with respect to wages and working conditions; a trade union.
VISIT	The CIS computer file listing individuals who have agreed to discuss their work with CIS users. VISIT files are developed cooperatively by CIS and local area staffs.
UPDATE	The process of keeping CIS information accurate and current. Approximately 150 updates are made in CIS computer files each week.

DISTRICT APPROVED LIST - JUNE, 1978*

Student Reference Materials (Supplementary Books - 5 or more copies per building)

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Activities for Exploring Career Decision-Making	AEL	McKnight	Bloomington, ILL 61701	1978	8.50	X	8-12	
Blacks in the Military	- - - -	C.C.C.O.	1251 2nd Ave.		.10	XX	8-12	
Black Women's Liberation	Williams/ Newman	Pathfinder Press	410 West St. NYC	1971	.50	/	9-A	
Career Core Competencies Program	Herr	McGraw Hill	Gov't Printing Office	1977				
Careereach	Dr. Larry Larvick, et al	Vision Publication	130 N. Wells St. Chicago 60606	1976	2.95		10-A	
Careereach Teacher's Guide	Dr. Larry Larvick, et al	Vision Publication	130 N. Wells St. Chicago 60606	1976	5.00			
Career Emphasis Series (workbook)	June A. Inge	Olympus Publisher	1670 E. 13th S. Salt Lake City, Utah	1977	14.95		11-A	
Career Exploration & Planning	Bruce Shertzen	Houghton Mifflin	777 California Ave. Palo Alto, CA 94304	1976		/	7-9	
A Chance To Go To College	- - - -	College Entrance Exam Board	Box 2815 Princeton, NJ			XX	8-12	
College Survival (Workbook & teacher's)	Thomas Hesiak, et al	Vision Publishing	130 N. Wells St. Chicago, IL	1976	2.95 5.00		11-A	
Deciding	H.B. Gelatt et al	College Entrance Exam Board	Box 2815 Princeton, NJ	1972	2.50	XX	7-9	
Decision Making (Workbook & Teacher's Guide)	Nelson & Perres	Vision Publishing	130 N. Well St. Chicago, Ill.	1976	2.95 5.00	X	10-A	
Decisions and Outcomes	H.B. Gelatt	College Entrance Exam Board	130 N. Wells St. Chicago, Ill.	1976	5.00	X	10-12	

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Student Reference Materials

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	ESL or Handicapped
Exploring Careers	AEL	McKnight	Bloomington, Ill 61701	1978	9.40	X	8-12	
Finding A Job You'll Feel Good About	D. Campbell	Argus Publisher	7440 Natchez Niles, IL 60648	1974	6.50	X	7-12	
Getting The Job	Lynch	McGraw-Hill		1977				
Going Right On	- - - -	College Entrance Exam Board	Box 2315 Princeton, NJ		6.00/ 50 copies	XX	8-12	
Growing On The Job	Wilson	McGraw-Hill		1977				
If You Don't Know Where You're Going You'll Probably End Up Somewhere Else	D. Campbell	Argus Publisher	7440 Natchez Niles, IL 60648	1974	2.25	/	7-12	
Individualized Activities For Career Exploration	AEL	McKnight	Bloomington, Ill 61701	1978	6.50		8-12	
Janus Job Interview Guide	Livingston	Janus	3541 Investment Blvd Suite 5, Hayward CA 94545	1977	3.25	/	9-12	*
Janus Job Planner	Jew-Tong	Janus	3541 Investment Blvd Suite 5, Hayward CA 94545	1976	2.85		9-12	
Job Application Language	Richey	Janus	3541 Investment Blvd Suite 5, Hayward CA 94545	1978	2.25		9-12	*
Job Power Now	Haldane/Haldane Martin	Acropolis Books	Bookstore	1976	3.95	/	9-12	
Job Search, Seizure Survival	Larry Larvick et al	Vision Publishing	130 N Wells St. Chicago 60606	1976	2.95		12-A	
Job Search, Seizure, Survival Teacher's	Larry Larvick et al	Vision Publishing	130 N Wells St. Chicago 60606	1976	5.00			

Student Reference Materials

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Making Decisions Work	Weagreff/Lynn	McGraw-Hill		1977				
Mapping Your Education	McClane, ed	Bell Pub. Co.	4401 N. Coast Hwy. Newport, OR	1978	6.85	XX		
Militarization of Woman	- - - -	C.C.C.O.	1251 2nd Ave. San Fransico CA		.06	XX	8-12	
Occupational Outlook Handbook (OOH) 1978-79 edition	U.S. Dept. of Labor	Gov't Printing Office	Gov't Bookstore	1977-76	8.50	XX	5-A	
Occupational Notebook Program	Iva Dean Cook	Research Press Co.	Box 3177 Champaign, Ill. 61820	1972	3.00			
Pink Collar Workers	Louise Kapp Howe	Avon	Bookstore	1977	2.25	X	7-A	
Preparing for Work	President's Com. on Employment of the Handicapped		President's Comm. on Employment/Hand. Olympia, WA		Free	XX	8-A	
Quick Job-Hunting Map	R. Bolles	Ten Speed Press	900 MODOC Berkeley, CA 94707	1977	1.25	XX	10-A	
Real World Magazine	- - - -	J.H. Wright	King Features 235 E. 45th St. N.Y., N.Y. 10017	1977	65.00 for 15 Subscriptions	XX	9-A	
Schools & Career	Herr	McGraw-Hill		1977				
Sign Language (reading work signs)	Jim Richey	Janus	3541 Investment Blvd Suite 5, Hayward, CA 94545	1977	1.75		9-12	*
Student Guide to Writing A Journal	- - - -	NW Regional Ed. Lab.	710 SW 2nd Ave. Portland, OR. 97204	1977	2.00		9-12	
Student Record of Community Exploration	- - - -	NW Regional Ed. Lab.	710 SW 2nd Ave. Portland, OR 97204	1977	2.00	/	9-12	

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Student Reference Materials

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Success Core (Work book & Teacher's Guide	Helson & Perres	Vision Publication	130 N. Wells St. Chicago, IL 60606	1976	2.95 5.00		11-A	
The Work Book	Tom Mellers	Butterick		1975				
Whatever Happened to Debbie Kraft?	- - - -	Feminists NW	Bookstore	1975	1.25		9-A	
Working: People Talk About What They Do	S. Terkel	Avon	Bookstore	1972	2.25	X	7-A	
Working at Human Relations	Fruehling			1977				
Worker Trait Group Guide	AEL	McKnight	Bloomington, Ill 61701	1978	11.95	XX		
Worker Trait Group Index to the OOH	AEL	McKnight	Bloomington, Ill 61701	1978	1.50	XX		
Yellow Pages of Careers	Schill	The Interstate	Danville, IL 61832	1977	4.95	XX	7-A	
Your Work & Your Career	Linder/Selzer	Wm. Sadlier, Inc.	570 Acaical Ave. San Bruno, CA 94066	1977	5.79		6-9	

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DISTRICT APPROVED LIST - JUNE, 1978*

(Reference Books for Students, 1-4 Copies Per School)

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Aim for A Job in Air Conditioning & Refrigeration	Donald F. Daly	ARCO Career Guidance Series			3.95		7-12	
Alternatives to College	Miriam Hecht Lillian Traub	Macmillan	Bookstore	1974	2.95	X	8-A	
Awareness Games	Clau-Jurgen Hoper, et al	St. Martin's Press	Social Studies School Service	1975	3.50			
Barron's Guide to the Two Year Colleges	- - - -	Barron's Educational Series, Inc.	Bookstore	1975	4.95	XX	10-A	
Barron's How to Prepare for College Entrance Examinations	- - - -	Barron's Educational Series, Inc.	Bookstore	1977	1.95	XX	10-A	
Barron's Profiles of American Colleges	- - - -	Barron's Educational Series, Inc.	Bookstore	Latest	6.95	XX	10-A	
Blaming the Victim	William Ryan	Vintage Books	Bookstore	1976	2.45			
By Hand: A Guide to Schools & A Career In Crafts	Coyne & Herbert	E.P. Dutton	Social Studies School Service	1974	3.95	/	9-A	
Career Choices In Occupational Educ.	- - - -	Commission for Vocational Education	Olympia, WA	1975	Free	XX	8-A	
Career Development Opportunities for Native Americans	Rogers C.B. et al	Dept. of the Interior	Washington, D.C.		Free	XX	8-A	
Career Guidebook	- - - -	Central Washington	Ellensburg, WA		Free	X	8-A	

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Reference Books for Students, 1-4 Copies Per School

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Career World II	- - - -	Curriculum Innovations, Inc.	501 Lake Forest Highwood, IL	Monthly Magazine	3.50/ sub	X1	8-12	
Career Satisfaction & Success	Haldane	Executive Books	Bookstore	1974	3.95		11-A	
Careers in Physical Rehabilitation Therapy	Halema Toure	Franklin Watts		1977	4.50		8-12	
Caring, Feeling, Touching	- - - -	Sidney Simon	Argus	1976	1.95		8-12	
Cass & Birnbaum's Comparative Guide to American Colleges	Cass & Birnhaum	Harper-Row	Bookstore	1977	7.95	XX	10-A	
Cass & Birnbaum's Comparative Guide to 2 Yr. Colleges & Specialized Schools & Programs	Cass & Birnhaum	Harper-Row	Bookstore	1976	6.95	XX	10-A	
Chronicle College Charts	- - - -	Chronicle Guidance	Moravia, N.Y. 13118	1978	6.95		10-A	
Chronicle College Counseling for Transfers	- - - -	Chronicle Guidance	Moravia, N.Y. 13118	1978	6.95		10-A	
Chronicle Guide To Four Yr. College Majors & Careers	- - - -	Chronicle Guidance	Moravia, N.Y. 13118	1978	6.95		10-A	
Chronicle Guide To Two Yr. College Majors & Careers	- - - -	Chronicle Guidance	Moravia, N.Y. 13118	1978	6.95		10-A	
College Guide for Students with Disabilities	Gollag/Bennett	ABT Publication	55 Wheeler St. Cambridge, Mass. 02138	1978	8.50	XX	10-A	X

Reference Books for Students, 1-4 Copies Per School

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
College Handbook	- - - -	CEEB	Box 2815 Princeton, NJ	1978	8.95		10-A	
College Planning/ Search Book	- - - -	American College Testing Program	P.O. Box 808 Iowa City, IA 52240	1975	5.00		10-A	
Dictionary of Occupational Titles, 4th Ed.	- - - -	U.S.Dept. of Labor	Gov't Bookstore	1977	12.00	XX	9-A	X
Directory of Special Programs for Minority Group Members, 2nd Ed.	Willis Johnson	Garrett PK. Press	Garrett PK, Maryland 20766	1975	8.50	XX	9-A	X
Don't Get Fired	Dorlynn Anema	Janus	3541 Investment Blvd Suite 5, Hayward, CA	1978	2.95		9-12	*
Dress for Success (for Men)	Molloy	Warner	Bookstore	1977	2.25	/	10-A	
Drug Abuse and Your Child	Alice Shiller	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		7-12	
Drug-use, Misuse Abuse	Margaret Hill	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		7-12	
Effective Personal & Career Decision Making	K. Bartsch Ph.D., et al	EDUPAC	231 Norfolk St. Walpole Maine 02081	1976	8.95		11-A	
Encyclopedia of Careers	Hope, ed.	American Personnel	1607 N. Hampshire NW Wash. DC 20009	1972	58.00	X	7-A	
Environmental Careers	O. Fanning		Division of Data Couicer, Inc.	1970	3.95			
Everything a Woman Needs to Know to Get Paid What This Worth	Caroline Bird	David McKay Co, Inc.	Bookstore	1973	8.95		10-A	
Exploring Careers Series of Workbooks: Data Processing Secretarial Clerical, Accounting Wholesaling & Retail.	Southwestern	James Bennett	31901 36th Ave SW Seattle, WA	1975	3.00	/	6-9	

Reference Books for Students, 1-4 Copies Per School

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Exploring Careers In The Humanities	Hansen	Gov't Printing Office	Gov't Bookstore	1976	1.25		7-A	
Exploring Dance Careers	Richard Cornell	H.E.W.	Gov't Bookstore	1976	1.75	/	7-A	
Exploring Manufacturing Occupations-Student's Manual	N.J. State Dept. of Educ., Div. of Voc. Ed.	Gov't Printing Off.	Gov't Bookstore	1976	1.75	X	8-A	
Exploring Music Careers	Cornell & Hansen	Technical Ed. Research Centers	Gov't Bookstore	1976	1.30	/	7-A	
Exploring Occupations in Engineering & Manufacturing	Resnick-Gradewell	McGraw Hill		1976	2.95	/		
Exploring Theater & Media Careers	Michael Allosso, et al	H.E.W.	Supt. of Documents Wash. DC 20402		2.15		7-A	
Exploring Visual Arts	Shelia Dubman et al	H.E.W.	Gov't Bookstore	1976	2.35		7-A	
Exploring Writing Careers	M.L. Hansen	Technical Ed. Research Centers	Supt. of Documents Wash. DC 20402	1976	1.40	/	7-A	
Federal Career Directory	- - - -	U.S. Civil Service	Gov't Bookstore				10-A	
Finding Work	McVey & Assoc.	Follett		1977	1.80		6-9	*
Foreign Language Careers	Dr. T. Hueliever	Vocational Guidance		1975	2.95		7-12	
Future Shock	Toffler	Bantam	Bookstore	1970	1.95	X	10-A	
Getting Yours	L. Pogrebin	Avon	Bookstore	1975	1.75		10-A	
Go Hire Yourself An Employer	R. Irish	Anchor Press/ Doubleday	Bookstore	1973	2.95	XX	10-A	

eference Books for Students, 1-4 Copies Per School

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
A Good Trade (The Story of Wash. Voc./Tech)	- - - -	Wash. State Council of Voc/Tech. Institute	Olympia, WA	1976	Free	XX	8-A	
Gourman Report	Gourman	National Educ. Standards	P.O. Box 27402 Los Angeles, CA 90027	1977	15.00			
A Guide to Apprenticeships In The State of Wash.	- - - -	Wash. State Coordinating Council for Occup. Ed.	Bldg. 17 Olympia, WA	1975	Free	XX	8-A	
Handbook of American College Financial Aid	- - - -	Social Studies School Service	10000 Culver #14 Culver City, CA		6.95		9-A	
Handbook of Job Facts Occassional use of "he")	- - - -	Science Research Associates	P.O. Box 4924 Chicago 60680	1972	5.00		7-A	
Help Yourself	John Lembo	Argus	7440 Natchez Niles, Il1	1974	2.50		7-12	
Helping The Handicapped Teenage Mature	Evelyn West	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		9-12	
High School Equivalency Diploma Tests	David R. Turner		Bookstore	1975	5.00		9-12	
How To Decide: A Guide for Women	Scholz et al	College Entrance Exam Board	Box 2815 Princeton, NJ	1975	5.95		11-A	
How to Make a Habit of Success	Haldane	Acropolis	Bookstore	1975	3.50		11-A	
Human Relations in Business	Eggland & Williams	South Western	31901 36th Ave. SW Federal Way 98003	1977	5.95		6-A	
I Can Be Anything	J. Mitchell	College Extrance Exam Board	Box 2815 Princeton, NJ	1977	7.95		7-12	
Job Opportunities Forecast for Wash. State (1976-82)	- - - -	Commission of Vocational Ed.	CVE Olympia	1978	Free	XX	7-A	

Reference Books for Students, 1-4 Copies Per School

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Job '76: Where They Are--How to Find Them	W. Yeomans	Berkley Publishing	200 Madison N.Y., N.Y. 10016	1976	2.50		9-A	
Jobs for Which a College Educ. Is Usually Required	- - - -	U.S. Dept of Labor	Gov't Bookstore	1976	.35		9-A	
Law & The New Woman	Mary McHugh	Franklin Watts		1975	4.50		8-A	
Lovejoy's Career & Vocational School Guide	C. Lovejoy	Simon & Schuster	Bookstore	1973	7.95	XX	10-A	
Lovejoy's College Guide	C. Lovejoy	Simon & Schuster	Bookstore	1976	5.95	XX	9-A	
Making It In College	Marion Walker Mark Blach	Mason/Charter	Social Studies School Service	1975	4.95		9-A	
Management Careers For Women	Place & Armstrong	Voc. Guidance Manuals, Inc.	Bookstore	1975	3.95		9-A	
A Minority of Women: Women in the U.S. Congress	H. Chamberlin	Mentor	Bookstore	1973	2.25		8-A	
Motivation and Your Child	Alcerose	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		7-12	
My Job Application File	C. Kahn	Janus	25825 Mission Blvd. Hayward CA	1975	1.95	X	8-12	X
Non-Traditional Careers for Women	- - - -		Bookstore		5.95		9-12	
Occupations 2	Dennis Schroeder	New Readers Press	Syracuse, NY	1974		/	7-12	
Occupational Outlook Quarterly	- - - -	Gov't Printing Office	Sup't of Documents	Quarterly Magazine	4.00/ sub	XX	11-A	

Reference Books for Students, 1-4 Copies Per School

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
On Your Own: 99 Alternatives to a 9-5 Job	K. Mathews	Vintage	Bookstore	1976	3.95		8-A	
101 Summer Jobs	R. Ashley	Workman Pub. Co.	Tempo Books Grosset & Dunlap 51 Madison Ave. N.Y., N.Y. 10010	1970	.75		8-12	
1001 Ways to be Your Own Boss	V. Bennett	Prentice Hall	Prentice Hall	1976	4.95		8-A	
Opportunities In Electrical Trades	Robert Wood	Voc. Guidance, Manuals	620 S. Fifth St. Louisville, Ky 40202	1975	2.95		8-12	
Opportunities in Engineering Technology Careers	John E. Heer, J.D., Joseph Hagerty	Voc. Guidance, Manuals	620 S. Fifth St. Louisville, Ky 40202	1975	2.95		8-12	
Opportunities In Environmental Careers	Odom Fanning	Voc. Guidance, Manuals	620 S. Fifth St. Louisville, Ky 40202	1975	2.95		8-12	
Opportunities In Library & Information Services	Peggy Sullican	Voc. Guidance, Manuals	620 S. Fifth St. Louisville, Ky 40202	1977	2.95		8-12	
Opportunities In Machine Shop Trades	Benjamin J. Stern	Voc. Guidance, Manuals	620 S. Fifth St. Louisville, Ky 40202	1976	2.95		8-12	
Opportunities In Office Occupations	Estelle L. Popham, Blanch Ettinger	Voc. Guidance, Manuals	620 S. Fifth St. Louisville, Ky 40202	1976	2.95		8-12	
Other Choices On Becoming A Woman	Joyce Slayton Mitchell	Dell & Co.	Pittsburgh, PA 15221	1974	1.25		8-12	
Out Of Work	Stephen Ludwig	New Readers Press	Lakeshore Curric.	1975	2.00	X	8-A	*
Pairing	George Back	Avon	Bookstore	1975	1.95		10-A	
Paraprofessions	Sarah Splaver	Julian Mesner	Bookstore	1972	5.25		8-A	

Reference Books for Students, 1-4 Copies Per School

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Parents & Teenagers	Margaret Hill	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		7-12	
Patterson's Schools Classified	Norman Elliott	Educ. Directories Inc.	P.O. Box 199 Mt. Prospect Ill. 60056	1974	4.00			
Personalizing Education	Leland W. Howe, Mary M. Howe	Hart Publishing Co.		1975				
Preparing Tomorrow's Parents	Elizabeth Ogg	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		9-12	
Psychology & Counseling	Rolland Parker	Franklin Watts		1977	4.50		8-A	
Resume Workbook	C. Nutter	Carroll Press	Cranston Rhode Island 02920	1970	5.00	/	10-A	
Rights of Teenagers as Patients	Theodore Irwin	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		8-12	
Saturday's Child	S. Seed	O'Hara	Bookstore	1973	4.95		5-A	*
Seattle Career Hunter's Guide	Raders	Victoria House	Bookstore	1978	5.95	XX	11-A	*
Seattle People's Yellow Pages	- - - -	YMCA Metrocenter	Bookstore	1977	3.00	XX	5-A	*
Sex Education for Disabled Persons	Irving R. Dickman	Public Affairs Pamphlet	291 Broadway NYC 10007		.35		8-A	*
Student Expenses at Postsecondary Institutions	- - - -	College Entrance Exam. Board	Box 2315 Princeton, NJ	Updated	Free	X	10-A	
Successful Interviewing Skills	Marion Sitzman Roloy Carcia	National Textbook Co.	Skokie, Ill 60076	1977			10-A	
T.A. for Teens	Freed	Price, Stern & Solar	Bookstore		7.95		9-A	
Take the Road to Creativity & Get Off Your Dead End	Campbell	Argus	7440 Natchez Niles, Ill 60648	1977	2.25		9-A	

eference B[illegible]s for Students, [illegible]-4 Copies P[illegible]r School

itle	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Lev l	OK for Handi-capped
Taking Charge of Your Life	Leland W. Howe Ph.D.	Argus Communications	7440 Natchez Niles, Ill.	1977	1.95		7-12	
Talking to Preteen-agers About Sex	Sadie Hofstein	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		5-8	
ea Leaves: A New Look t Resumes	Richard N. Boles	10 Speed Press	Box 7123 Berkeley CA 94707	1977	.50		10-A	
Technical Education Yearbook	- - - -	Prakken	416 Loapbore Dr. Ann Arbor, MI 48107	1977	18.00	X	10-A	
Teenage Jobs	R. Lembeck	Dell	1 Dag Hammarskjold NYC 10017	1971	.95	XX	9-A	
The Jobs Book-How to Find and Keep a Job	Jeri Schapiro	Scholastic	50 W. 44th St. NYC 10036	1976	1.25		6-9	*
o Combat Child Abuse Neglect	Theodore Irwin	Public Affairs Pamphlet	291 Broadway NYC 10007		.50		7-12	
391 Ways to Explore Arts & Humanities Careers	Hansen et al	Technical Ed. Research Centers	Gov't Printing	1976		X	10-A	
Unmarried Teenagers & Their Children	Elizabeth Ogg	Public Affairs Pamphlet	291 Broadway NYC 10007		.35		8-12	
Using Community Resources	McVey & Assoc.	Follett		1977	1.80	X	9-12	*
VD-Epidemic Among Teenagers	Jules Saltman	Public Affairs Pamphlet	291 Broadway				8-12	
What Color Is Your Parachute?	R. Bolles	Ten Speed Press	Bookstore	1976	4.95	XX	11-A	
Who's Hiring Who	R. Lathrop	Ten Speed Press	Bookstore	1977	5.95	XX	10-A	
Woman's Dress for Success	Molloy	Follett	Bookstore	1977	9.95	/	10-A	

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Reference Books for Students, 1-4 Copies Per School

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Woman's Guide to the UW 1977-78	Office for Affirm. Action	Office for Affirm. Action	Bookstore	1977	1.00		12-A	
Woman's Place	C. Epstein	U. of Cal. Press	Bookstore	1970	2.45		9-12	
Women at Work	B. Medsger	Sheed & Ward	Bookstore	1975	7.95	XX	4-A	
Women's Work	- - - -	Women's Work, Inc.	1302 18th St. NW Suite 203 Wash., DC	Bi-monthly	15.00/ sub	X	11-A	
Women's Work, Women's Health	Jeanne Stellman	Pantheon Books	Bookstore	1977	3.95			
Working Woman	- - - -	Wider Opportunities for Women	1649 K St. SW Wash. DC 20006	Monthly Magazine	10.00		8-A	
Worklife	- - - -	Gov't Printing Office	Supt. of Documents Wash. DC	Monthly Magazine	15.00			
World of Work	Koschnick & Ludwig	New Readers Press	Syracuse, NY	1975	3.75	/	7-12	
Why Am I Afraid To Tell You Who I Am?	John Pavell	Argus Communications	Argus	1975	1.45		9-12	
Young Homemakers Cook-book	Ann Weaver	Fearson	6 Davis Dr. Belmont CA 94002	1974			4-8	*

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DISTRICT APPROVED LIST - JUNE, 1978*

Professional Reference

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
About Jobs & Mentally Retarded People	President's Com. on Employment of the Handicapped		Governor's Comm. on Employ. of the Handicapped Employ. Security Bldg. Olympia, WA 98504		Free	XX		
Affirmative Action to Employ Handicapped People	President's Com. on Employment of the Handicapped People		" "		Free	XX		
Affirmative Action for Women	Jongeward & Scott	Addison-Wesley	Bookstore	1975	5.95	X		
Beginning Values Clarification	Simon/Clark	Pennant Press	Bookstore	1975	4.95			
Black Workers in White Unions	Wm. Gould	Cornell Press	Bookstore	1977-78	20.00			
Blaming the Victim	William Ryan	Vintage Books	Bookstore	1976	2.45	/		
Career Decisions #72194	- - - -	APGA	1607 New Hampshire WASH DC 20009		2.50/5			
Career Education Subject Area Teachers - Grades 9-12 - Grades 6-9 - Grades 1-6	Finn & Lawson	ABT Publications	55 Wheeler St. Cambridge, Mass. 02138	1975	10.00 / each	X		
Career Guidance In The Arts & Humanities	Ritvo & Hanson	Technical Ed. Research	Gov't Bookstore	1976	2.35	/		
Career Education in the Academic Classroom	Mangum et al	Olympus	Bookstore	1975				
Career Guidance Practices in School & Community	L. Hansen	American Personnel & Guidance Assoc.	1607 New Hampshire Wash. DC 20009	1970	5.25			

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Professional Reference

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Career Ed. and the Counselor	Pietrofesa/ Leonard/ Girous	APGA Reprint Series/ Six	1607 New Hampshire Wash. DC 20009	1975				
Career Education for Gifted & Talented	Hoyt, Ed.	Olympus	Bookstore	1974	13.95	X		
Career Exploration & Preparation for the Special Needs Learner	Phelps & Lutz	Allyn & Bacon	Longwood Dir. 470 Atlantic Ave. Boston, MA 02210	1977	12.95	XX		*
Career Exploration & Skills Development: The Community Training Site Method	- - - -	Northwest Regional Educ. Lab	710 SW 2nd Ave. Portland, Ore.	1977	3.95	/		
Career Guidance Practices For Disadvantaged Youth	Miller/Leonard	Nat'l Voc. Guidance Assn.	1607 New Hampshire Wash. DC 20009	1974	4.00	X		
Clarifying Values Through Subject Matter	M. Harmin	Winston Press	Bookstore	1973	2.45			
Dictionary of Occupational Titles Volume I, 3rd Edit.	- - - -	Government Printing Office	Gov't Bookstore Seattle, WA	1965	13.20	XX		
Dictionary of Occupational Titles, Vol. II	- - - -	Government Printing Office	Gov't Bookstore Seattle, WA	1965	12.50	XX		
Dictionary of Occupational Titles, Supplement A	- - - -	Government Printing Office	Gov't Bookstore Seattle, WA	1965	4.75	XX		
Dictionary of Occupa- Titles 4th Edition	- - - -	Government Printing Office	Gov't Bookstore Seattle, WA	1977	12.00	XX		
Directory of Free Materials for Counselors & Teachers	A.L. Block	Sextant Systems	639 S. 29th St. Milwaukee, Wisc.	1970	9.95			

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Professional Reference

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Employment Problems of Women: a Classic Example of Discrimination	- - - -	Office of Research	1800 G. St. NW Wash. DC 20506	1972				
E.P.I.E.	- - - -	Educational Products Information Exchange	463 West St. N.Y., N.Y. 10014	1975		X		
Evergreen Pages - A Directory of Community Resources	- - - -	NW Regional Lab	Office of Career Education, Olympia WA	1977	Free			
Experience-Based Learning How to Make A Community Your Classroom	Larry McClure Sue Cook Virginia Thompson	Northwest Regional Educ. Lab	710 SW 2nd Ave. Portland, Ore. 97204	1977	9.45			
Facilitating Career Development for Girls & Women	- - - -	American Personnel & Guidance Assoc.	1607 New Hampshire Wash. DC 20009	1975	4.00	XX		
Guideline Series 1978 (free materials)	- - - -	Guidelines to Success Inc.	P.O. Box 1366 Corvallis, Ore. 97330	1978	29.00/ set	X		
Guide to Job Placement Of Mentally Retarded Workers	President's Com. on Employment of the Handicapped		President's Com. on Employ. of Hand. Olympia, WA		Free	XX		
Guide to Local Occupational Information	- - - -	U.S. Dept. of Labor Employment & Training Admin.	Gov't Bookstore Seattle, WA	1976	2.90			
Handbook for Analyzing Jobs	- - - -	U.S. Dept of Labor	Gov't Bookstore Seattle, WA	1972	3.00	XX		
Health, Welfare & Recreation Services Directory	- - - -	United Way of King County	United Way	1975	2.25	XX		
Hiring the Handicapped: Facts & Myths	President's Com. on Employment of the Handicapped		President's Com. on Hand. Olympia, WA		Free			

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Professional Reference

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Hiring People with Disabilities	President's Com. on Employ. of the Handi.		President's Comm. on Employ. of Handicapped Olympia, WA		Free			
Issues of Sex Bias & Sex Fairness in Career Interest Measurement	Diamon, ed (NIE Career Ed Staff)	HEW	Supt. of Documents Gov't Printing Off. Wash., DC 20402	1975	3.20	X		
Intergroup & Minority Relations	Fromkin & Sherwood	Univ. Assoc.	Social Studies School Service	1976	8.00	X		
Jobs for Americans	- - - -	Congressional Quarterly	1414 22 St. NW Wash. DC 20037	1978	5.00			
Leisure & The Quality of Life	Editors:Edwin	Aapher Press	Institute for Learning Infor. Serv. IFM Bldg., Old Saybrook, Ct. 06475	1972	19.45			
Making Vocational Choices	Holland	Prentice Hall	Englewood Cliff, NJ	1973	5.95	X		
Measuring Vocational Maturity for Counseling and Evaluation	D.E. Super	National Vocational Guidance Assoc.	American Personnel & Guidance, 1607 New Hampshire Ave., Wash. DC 20009	1974	3.95			
Meeting Yourself Halfway	Simon	Argus	Bookstore	1974	4.95	/		
Minimum Wage Laws Industrial Relations Division	- - - -	Dept. of Labor & Industries	Old Federal Off. Bldg., 900 1st Ave. Seattle, WA	1977	Free	X		
NCIC Inform Subscription	- - - -	National Career Information	1607 New Hampshire Ave. Wash DC 20009	Monthly Newsletter	65.00			
New Career Options: A Counselor's Sourcebook	H. Farner	Human Sciences Press	72 5th Ave N.Y., N.Y. 1011	1977	14.50			
Occupational Information	Hoppock	McGraw Hill	Bookstore	1976	14.50			

Professional Reference

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handi-capped
Occupational Literature	Gertrude Foster	H.W. Wilson	950 Univ. Ave. Bronx, N.Y. 10452	1971	15.00			
Occupational Outlook Handbook (latest edition)	- - - -	Gov't Printing	Gov't Bookstore Seattle, WA	1978	8.50	XX		
100 Ways to Enhance Self-Concept in the Classroom	Canfield & Wells	Prentice-Hall	Bookstore	1976	6.95			
Parent's Role In Career Development	- - - -	APGA	1607 New Hampshire NW, Wash. DC 20009		2.25/5	/		
People & Jobs A Chart-book of Labor Force, Employment & Occupational Projections	Stern	U.S. Dept. of Bureau of Labor Statistics	Old Federal Office Bldg., Seattle	1976	1.95	/		
Personnel Testing & Employment Opportunity	Anderson & Rogers	EEOC	Gov't Bookstore Seattle, WA	1970	.95	XX		
Pre-Employment Inquiries	- - - -	Human Rights Comm.	Evergreen Plaza Bldg. Olympia 98504	1977	.22	XX		
Project Ideabook	- - - -	NW Regional Educ. Lab	710 SW 2nd Ave. Portland, Ore. 97204	1976	10.00			
Rural American Series	- - - -		Ctr. for Voc. Ed. 1960 Kenny Road Columbus, Ohio	1977				
Sensitivity Training & Encounter Groups	Elizabeth Ogg	Public Affairs Pamphlet	291 Broadway NYC 10007		.35			
Sex Fairness in Career Guidance (workshop materials)	- - - -	ABT Publications	55 Wheeler St. Cambridge, Mass 02138					
Special Materials	- - - -	Wash. State Comm. Resource System for Career Ed	Old Capitol Bldg. Olympia 98604	1977	Free			

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Sign Language (Understanding work signs)	Jim Richey	Janus	1725 242 SE Bothel, WA	1977	1.75			
Strategies in Humanistic Educ., Vol. I & II	Timmerman & Ballard	Mandala	P.O. Box 796 Amerherst, Mass	1975	5.95			
Subject: Mathematics Object: Career Opportunities	W. Johnson	Time Share	630 Oakwood Ave. W. Hartford, Conn 06100	1975	48.00			
Sugar & Spice is not the Answer	Vetter-Lowry-Burkhardt	Center for Vocational Educ., Ohio State Univ.	1960 Kenny Rd. Columbus, Ohio 43210	1977	3.95	/		
Teachers Guide - Helping Students Learn	- - - -	Wash. State Comm. Resource System for Career Ed	Old Capitol Bldg. Olympia, WA 98604	1977	Free			
The Community Resource Persons Guide for Experience-Based Learning	Ruth Burt & Marcia Douglas	Northwest Regional Educ. Lab	710 SW 2nd Ave. Portland, Ore. 97204	1977	.95	X		
The Evergreen Pages A Directory of Community Resources	- - - -	Wash. State Comm. Resource System for Career Ed	Old Capitol Bldg. Olympia 98604	1977	Free			
The Legal Status of Homemakers in WA	Nat'l Comm. on Observance of International Women's Year	Supt. of Documents	Gov't Bookstore	1977	1.25			
Values Clarification	S. Simon	Hart	Bookstore	1972	4.95	XX		
Woman Power: Manual for Workshops in Personal Effectiveness	L. Manis	Carroll Press	P.O. Box 8113 Cranston, RI	1977	5.00	XX		
Yes They Can! Practical Guide for Teaching Slow Students	- - - -		Soc. Studies School Serv., 10000 Culver Blvd., Dept. 14 Culver City, CA					

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KITS AND SETS

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
A Business of Your Own --Catering --Earthworm Breeding --Recycling --Battery Reconditioning --Vinyl Repair --House Painting --Flower Arranging --Janitorial Service	- - - -	Educ. Insights Inc.	20435 S. Tillman Ave., Carson, CA 90746	1976	12.00/ each		7-12	
Activities for Exploring Careers in Math	David J. Newton	J. Weston Walsh	Portland, Maine 04104	1977	14.00	/	9-12	
Activities for Exploring Careers in Science	David J. Newton	J. Weston Walsh	Portland, Maine 04104	1977	14.00	/	9-12	
Am I Ok? (book & posters)	Phillips, Cordell	Argus	7440 Natchez Niles, Ill. 60648		30.00			
An Introduction to Values Clarification	- - - -	Educ. & Consumer Relations Dept.	J.C. Penney Co. 1301 Ave of Amer. New York, N.Y. 10019	1972	12.00		6-9	
Awareness: Insight Into People	- - - -	J.C. Penney Co.	1301 Ave of Amer. N.Y., N.Y. 10019	1970	12.00		8-12	
Basic Skills for Everyone	Eleanor Young	Cebco Standard Pub.	Lakeshore Curriculum	1972	19.95		10-12	
Basic Skills On The Job	Eleanor Young	Cebco Standard Pub.	Lakeshore Curriculum	1972	7.95	/	10-12	
Career Card File	Gorton & Nealy	Developmental Learning	7440 Natchez Niles, Ill. 60648	1976	25.00		6-9	
Career Exploration Kit	Marion H. Sandalls		Lakeshore Curriculum	1977	10.00	/	7-12	
Career Insights & Self Awareness Game	Munson & Gockley	Time Share	630 Oakwood Ave. W. Hartford, Conn. 06110		54.00		4-8	*

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Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Careers	- - - -	General Mills	Game Store	1970	8.95		5-A	
Career Skills Matrix	- - - -	Westinghouse Learning	5005 W. 110 St. Oak Lawn, Ill. 60453		50.00			
Career Wheels	Educ. Career	American Personnel & Guidance Assoc.	1607 New Hampshire NW, Wash. DC 20009	1975	20.00		8-12	*
Chicanos Y Chicanas	- - - -	Lakeshore Curric.	Carson, CA 90749	1976	12.50		4-12	*
Chronicle Guidance Career Briefs (in binders)	- - - -	Chronicle Guidance	Moravia, N.Y.	Material after 1973 Okay	125.00		8-12	
College Games (3 players version)	Julia Sullivan	Social Studies School Services	P.O. Box 802 Dept. 14 Culver City, CA		10.00	/	12-A	
Contemporary Am. Indian Biog.	- - - -	Instructor Public	Lakeshore Curric.		12.50		4-12	*
Contemporary Black Biog.	- - - -	Audio-Visual Enter.	Lakeshore Curric.		5.50		4-12	*
Desktop Career Kit	- - - -	Largo	Key Largo Florida	Material after 1973 Okay	135.00		8-A	
Effective Communication	J. Schrank	Argus Pub.	7440 Natchez Ave., Niles Ill. 60648	1977	25.00		8-A	
Exploring Careers (ditto masters)	- - - -	ABT Associates	55 Wheeler St. Cambridge, Mass 02138	1975	35.00		11-A	
Exploring Careers (posters)	- - - -	Instructo	Lakeshore Curric.	1976	5.50		6-12	*
Finding A Job You'll Feel Good About	C. Garrison	Argus Pub.	7440 Natchez Ave., Niles, Ill. 60648	1977	6.50		7-12	

Kits and Sets

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Garrett Park Press (posters)	- - - -	Garrett Park Press	Garrett Park	1976	30.00	X	9-A	
Getting A Job	- - - -	Education Design Inc.	47 W. 13 St., N.Y.	1975	229.50		10-12	
Hello World!	R. Holloway	Field Ed. Pub.	Field Ed. Pub.	1973	12.15		8-12	
If You Don't Know Where You're Going, You'll Probable End Up Somewhere Else	D. Campbell	Argus Pub.	7740 Natchez Ave., Niles, Ill. 60648	1974	6.50		7-12	
Interview Strategies (book & dittos)	Conley & Wernick	Argus	7740 Natchez Ave., Niles, Ill 60648		5.00		10-A	
Job Interview Kit	Jew & Tong	Janus Pub.	25825 Mission Blvd. Palo Alto, CA	1976	23.95	XX	9-A	
Match Wits	- - - -	Pennant Educ.	La Mesa, CA 92041	1973	9.95		6-A	
New City Telephone Game	(Bell Tel. Co.)	Simile II	1150 Sivendo P.O. Box 1023 La Jolla, CA 92037	1974	Loan from Bell Co.	X	9-A	
Occupational Cluster Posters	- - - -	Time Share	630 Oakwood W. Hartford, Conn. 06110	1974	21.00		7-12	*
Occupational Photographs	- - - -	Developmental Learning Materials	7440 Natchez Ave. Niles, Ill. 60648	1976	4.00		All	
Occupational Profiles	William J. Johnson	Johnson	428 S. Wilbur Mesa, Ariz. 85202	1973	25.00		9-A	
Occupational Projections & Training	- - - -	U.S. Dept of Labor Bureau of Labor	Superint. of Documents, U.S. Gov't, Gov't Bookstore	1976	1.75		11-A	
On The Job	- - - -	Education Design Inc.	47 W. 13 St., N.Y.	1975	113.00		10-12	

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Kits and Sets

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handicapped
Pioneers in A Man's World (photos)	- - - -	Documentary Photo Aids	Lakeshore Curric.		14.15		4-12	*
Portfolio of Chicano	- - - -	Educ. Consortium of America	Lakeshore Curric.	1974	12.50		4-12	*
Real People at Work Series - 60 Titles Reading level 5.0-6.5	- - - -	Educ. Research Council of Amer.	1729 H. St. NW Wash., DC 20006	1975	1.95/ each	/	5-12	
Society Today, game	- - - -	Dynamic Design	1433 N. Central Anaheim CA 92802	1971	7.00		9-A	
Study Prints - Spanish Speaking Amer.	- - - -	Audio-Visual Ent.	Lakeshore Curric.	1972			4-12	*
Subject: Mathematics Object: Career Opportunities	Wesley Johnson	Time Share	630 Oakwood Ave. W. Hartford, Conn. 06100	1975	48.00		9-12	
The College Game	Dr. Ronald	Soc. Studies School	Culver Blvd. Culver City, CA 90230	1969	30.00		11-A	
The Balanced Life in A Cruel Cruel World Value Game	- - - -	Pennant Educational	La Mesa, CA 92041	1973	14.95		10-A	
20th Centry Am. Women Photo & Biographies	- - - -	Instructo Pub.	Lakeshore Curric.		5.50			
20th Century Black Biography	- - - -	Audio-Visual Enterprises	Lakeshore Curric.	1970	5.50			
20th Centry Black Personalities	- - - -	Instructor Public	Lakeshore Curric.				4-12	*
Unemployment Benefits	- - - -	Relevant Productions	Lakeshore Curric.	1977	9.50	/	9-A	

Title	Author	Publisher	Supplier	Copyright	Price	Priority	Grade Level	OK for Handi-capped
Ungame	- - - -	Ungame Co.	14405 S. State College Blvd. Anaheim, CA 92806		9.50	/	9-A	
WOIS Needlesort & Information Files	- - - -	WOIS	40 Evergreen State College, Olympia 98505	1978	185.00	XX	9-A	*
Women in American Life	Mary Davis	T.S. Denison	Minneapolis, Minn. 55437	1976	13.00	X	7-12	
Women in Science	- - - -	Amer. Assoc. Physics Teachers	Grad. Physics Bldg. Stony Brook NY 11794	1973	27.50		7-A	
Work Applications	- - - -	Relevant Productions	Lakeshore Curric.	1977	9.50	/	9-A	

INTRODUCTION TO LEARNING ACTIVITIES

The learning activities included in this section were developed by CIS users or site coordinators. The activities have been field tested and are proven ways to maximize the usefulness of CIS. The activities add that critical additional step which is needed to help the student or client utilize career information in a way that satisfies their personal needs.

The activities have been grouped into sections. While the sections are not mutually exclusive, they represent logical clusterings of the activities. The first section includes learning activities which have been developed for use in Career Guidance. These might be used for career center activities or in classes with units on career exploration. The remaining sections include activities which have been developed for use by teachers in the subject matter areas of: language arts, social studies, science, mathematics, physical education, art, personal finance, business, industrial arts, health, and food services. The site coordinator might want to review the section in this handbook regarding "Distributing Learning Activities" (see page III-12). Some other considerations the user should make when using the activities are listed below:

1. Activities can be easily adapted from one subject matter area to another. Coordinators and teachers are encouraged to do so.

2. The teacher or counselor should take notes regarding the activity's success and record their comments on the learning activity form.

3. A thorough studying of the activity prior to its use will enable the instructor or counselor to better implement the activity.

4. The facilitator should be certain that all materials and/or facilities required for the activity are available in sufficient quantity.

5. Teachers and counselors are encouraged to think of their own activities. Blank forms have been provided and CIS would like to see your learning activities so they can be shared with other users.

6. The site coordinator should always keep a master copy of each learning activity in his or her handbook. Xeroxed copies should be distributed to other counselors or instructional faculty.

MASTER INDEX

MASTER INDEX

Subject Areas & Learning Activities

Subject Areas & Learning Activities	ACTIVITY NUMBER	CLASS PERIOD ACTIVITY	2 - 3 CLASS PERIODS	1 WEEK ACTIVITY OR LONGER	CLASSROOM ACTIVITY	FIELD ACTIVITY	RESOURCE CENTER ACTIVITY	GROUP ACTIVITY	INDIVIDUALIZED ACTIVITY	USE WITH TERMINAL	USE WITH NEEDLE-SORT	JUNIOR HIGH LEVEL	SENIOR HIGH LEVEL	APPLICABLE FOR OTHER SUBJECT AREAS
A. GUIDANCE														
Using CIS with the Strong-Campbell Interest Inventory	A- 1	X			X		X		X	X	X	X	X	
Using CIS with Worker Trait Groups	A- 2	X			X		X		X	X	X	X	X	
If Only . . .	A- 3			X	X		X	X		X	X	X	X	
Learning Package	A- 4			X	X		X		X	X		X	X	
Do You Want to Work With People?	A- 5	X			X			X	X		X	X	X	
Personal Characteristics and Occupational Choice	A- 6	X			X		X	X	X	X	X	X	X	C
What to Be -- That is the Question	A- 7			X	X	X	X		X	X	X	X	X	C
Quick Wits	A- 8	X			X			X	X	X	X	X	X	
Education & Training: Do They Determine Your Job?	A- 9	X			X			X	X	X	X	X	X	
Life-Line to Your Career	A-10		X		X			X	X	X	X	X	X	C
Now Hear This!	A-11		X		X		X	X	X	X	X		X	
Selling, Persuading and Your Future Job	A-12	X			X			X	X		X	X	X	I
Career Search	A-13			X	X	X	X		X	X	X	X	X	C
Planning Your Post High School Education	A-14	X			X	X	X	X	X	X	X		X	

B. LANGUAGE ARTS														
Panel of Experts	B-1	X			X		X	X		X	X	X		
To Tell the Truth	B-2	X			X			X				X	X	
Vocabulary and the World of Work	B-3	X			X		X	X	X		X	X	X	A, E
Password to Careers	B-4		X		X			X			X	X	X	
Writing a Skill-Related Resume	B-5		X		X				X	X	X		X	D, F, G
Dear Diary	B-6		X		X				X	X	X	X	X	D, E, G
Research Paper	B-7			X	X		X		X	X	X	X	X	
Is It All It's Cracked Up To Be???	B-8			X	X	X	X	X	X	X	X	X	X	
Pre-Work Observation Activity	B-9			X	X	X		X	X		X	X	X	
C. SOCIAL STUDIES														
Interests, Occupations & Employment	C- 1		X		X	X	X		X	X	X	X	X	A
What Shall I Do Now?	C- 2		X		X		X	X		X	X	X	X	A
From Raw Resources to Jobs	C- 3	X			X			X		X	X	X	X	
How Well Do You Know Your Parents?	C- 4		X		X		X		X	X	X	X	X	A
Not Gold But Sand and Gravel	C- 5		X		X	X	X	X	X		X	X	X	
Where To From Here?	C- 6	X			X		X	X	X	X	X	X	X	
Worker Interest Patterns	C- 7	X			X			X				X	X	A
Physical Handicaps: Are They Job Handicaps???	C- 8	X			X			X	X					
Necessity is the Mother of Invention - and Tomorrow's Jobs	C- 9		X		X		X	X	X	X	X	X	X	
U.S.A. Population Growth	C-10		X		X		X	X	X	X	X	X	X	
You Want to do What Where???	C-11	X			X			X			X	X	X	

D. SCIENCE	ACTIVITY NUMBER	CLASS PERIOD ACTIVITY	2 - 3 CLASS PERIODS	1 WEEK ACTIVITY OR LONGER	CLASSROOM ACTIVITY	FIELD ACTIVITY	RESOURCE CENTER ACTIVITY	GROUP ACTIVITY	INDIVIDUALIZED ACTIVITY	USE WITH TERMINAL	USE WITH NEEDLE-SORT	JUNIOR HIGH LEVEL	SENIOR HIGH LEVEL	APPLICABLE FOR OTHER SUBJECT AREAS
Comparing Careers in Science	D-1		X		X		X	X	X	X	X		X	E, I
Our Human Environment	D-2		X		X				X	X	X	X		
Viewmaster	D-3		X		X	X	X	X	X	X	X	X	X	
Our Feet on the Ground	D-4	X			X	X			X		X	X	X	E, I
E. MATHEMATICS														
Me and My Math	E-1		X		X		X		X	X	X	X	X	
What a Difference Math Makes	E-2		X		X		X	X		X		X	X	A, B
Measuring Tools	E-3		X		X		X	X	X	X	X	X	X	D
F. PHYSICAL EDUCATION														
Finding Out About P.E. Careers	F-1			X	X	X		X			X	X	X	D, G, I
G. ART														
Creativity and Your Career	G-1		X		X			X	X		X		X	
Exploring Careers in Art	G-2		X		X		X		X	X	X		X	D

H. PERSONAL FINANCE														
Warning: This Occupation May Be Hazardous To Your Wealth	H-1		X		X		X	X	X	X		X	X	D, C, I
Economics and Your Life Style	H-2	X			X			X	X		X	X	X	
I. CAREER CLUSTERS														
BUSINESS														
Exploring Business Careers	I-1		X		X	X			X	X	X		X	D, E, G
INDUSTRIAL ARTS														
Tools Used Within Shop Careers	I-2		X		X			X	X	X	X	X		
HEALTH														
Careers as Health Technicians/Technologists	I-3		X		X				X	X	X		X	D
FOOD SERVICES														
Commercial Kitchens	I-4		X		X			X	X	X	X	X	X	

GUIDANCE

The following collection of CIS* learning activities has been provided to assist teachers and counselors in helping students and clients with their career information and decision-making needs. These materials may be of particular assistance to junior and senior high school Guide Teachers.

LEARNING ACTIVITIES

A-1 Using CIS with the Strong-Campbell Interest Inventory
A-2 Using CIS with Worker Trait Groups
A-3 If Only . . .
A-4 Learning Package
A-5 Do You Want to Work With People?
A-6 Personal Characteristics & Occupational Choices (adapted from): What Shall I Do Now?
A-7 What To Be — That is the Question
A-8 Quick Wits
A-9 Education & Training: Do They Determine Your Job??
A-10 Life-Line to Your Career
A-11 Now Hear This!
A-12 Selling, Persuading and Your Future Job
A-13 Career Search
A-14 Planning Your Post High School Education

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*CIS is presently being used in nearly 400 schools, colleges, and social agency settings in Oregon where career planning is on-going.

TITLE: USING CIS WITH THE STRONG-CAMPBELL INTEREST INVENTORY

by Bruce McKinlay and Donna Mossler CIS Eugene, Oregon

OBJECTIVE: To identify occupational information pertaining to the Strong-Campbell Interest Inventory.

TIME: About 1 hour.

MATERIALS & FACILITIES NEEDED:

An individual's Strong-Campbell Interest Inventory Interest Profile Form
A copy of the SCII/CIS Conversion Table (see following page)
Printed CIS Occupational Information (User's Handbook needed for computer version)

PROCEDURES:

This activity is designed to permit people who have recently completed the Strong-Campbell Interest Inventory and who have their SCII profile form to obtain current information about the occupations. The counselor, after explaining the individual's SCII results, may wish to:

1. Have the person select several interesting occupations (e.g., occupations that rated high, or surprisingly low) from his or her SCII profile form.
2. Using the SCII/CIS conversion table on the following pages, have the person identify the CIS occupational codes that correspond to the SCII occupation designations.
3. The person can use the occupational code number to locate a specific occupation in CIS and then examine the occupational information (job duties, outlook, wages, etc.) in the CIS files. (Computer users will need operating instructions from the back of the CIS User's Handbook. Computer users first type their name on the computer terminal's keyboard. Then the computer instructs them to type in either QUEST or INFO; at this point the user can type in DESC and the occupation code number to get immediately into the occupational information files.)

Technical Note: The conversion table on the following pages is constructed from an analysis of the composition of Strong-Campbell Occupational Criterion Groups, some of which are specialties within CIS occupational titles.

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SCII/CIS CONVERSION TABLE

OCCUPATIONAL INFORMATION RELATED TO THE STRONG CAMPBELL INTEREST INVENTORY (SCII)

Current occupational information is available through the Career Information System for occupations listed on Strong Campbell Interest Inventory (SCII) Report Forms. See the CIS occupational descriptions indicated below:

Strong-Campbell Occupational Criterion Groups	Corresponding CIS Occupations	
Accountant (f,m)	1614	Accountants & Auditors
Advertising Executive (f,m)	1162	Sales & Service Managers
	1195	Public Relations Workers
	4724	Commercial Artists & Designers
	7422	Business Services Salespeople
Agribusiness Manager (m)	4164	Farmers and Ranchers
	1162	Sales & Service Managers
	1142	Small Business Managers
Air Force Officer (m)	1172	Military Officers
Architect (m)	2316	Architects
Army Officer (f,m)	1172	Military Officers
Art Teacher (f)	8456	Elementary & Secondary Teachers
	4724	Commercial Artists & Designers
Artist (f,m)	5982	Handcrafters
	4724	Commercial Artists & Designers
Banker (f,m)	1636	Loan Officers
	1144	Business Executives
Beautician (f)	8186	Cosmetologists
Biologist (m)	2611	Life Scientists
	26112	Biologists
	8454	University & College Teachers
Business Education Teacher (f,m)	8456	Elementary & Secondary Teachers
Buyer (f,m)	1184	Buyers & Purchasing Agents
Cartographer (m)	2364	Drafters
Chamber of Commerce Executive (m)	1195	Public Relations Workers
Chemist (f)	2624	Physical Scientists
	26242	Chemists
Chiropractor (m)	8122	Chiropractors
College Professor (f,m)	8454	University & College Teachers
Computer Programmer (f,m)	1684	Programmers & Systems Analysts
Computer Sales (m)	7422	Business Services Salespeople
Credit Manager (f,m)	1636	Loan Officers
Dental Assistant (f)	8176	Dental Assistants
Dental Hygienist (f)	8174	Dental Hygienists

Strong-Campbell Occupational Criterion Groups	Corresponding CIS Occupations	
Dentist (f,m)	8113	Dentists
Department Store Manager (m)	1162	Sales & Service Managers
Department Store Sales (f)	7454	Salespersons
	7484	Sales Clerks
Dietitian (f,m)	8116	Dietitians
Director Christian Education (f)	1136	Education Administrators
Elementary Teacher (f,m)	8456	Elementary & Secondary Teachers
Engineer (f,m)	2354	Engineers
English Teacher (f,m)	8456	Elementary & Secondary Teachers
Entertainer (f)	9866	Performing Artists
Executive Housekeeper (f)	3434	Room Cleaners
Farmer (m)	4164	Farmers & Ranchers
Flight Attendant (f)	7856	Flight Attendants
Forester (m)	4124	Foresters
	4128	Forestry Technicians
Funeral Director (m)	8182	Funeral Directors - Embalmers
Guidance Counselor (f,m)	8414	Counselors
Highway Patrol Officer (m)	9414	Law Enforcement Officers
Home Economics Teacher (f)	8456	Elementary & Secondary Teachers
Instrument Assembler (f)	5686	Electronics Assemblers
Interior Decorator (f,m)	2366	Interior Decorators & Designers
Investment Fund Manager (m)	7415	Securities Salespeople
Language Interpreter (f)	No Corresponding Occupation	
Language Teacher (f)	8456	Elementary & Secondary Teachers
Lawyer (f,m)	8432	Lawyers
Librarian (f,m)	8462	Librarians
Life Insurance Agent (f,m)	7416	Insurance Salespeople
Mathematician (f,m)	2332	Mathematicians & Statisticians
Math-Science Teacher (f,m)	8456	Elementary & Secondary Teachers
Medical Technologist (f,m)	2656	Laboratory Testers
Merchant Marine Officer (m)	1172	Military Officers
	11722	Naval Officers
Minister (m)	8436	Clergy
Musician (f,m)	9866	Performing Artists
Navy Officer (m)	1172	Military Officers
Nurse, Licensed Practical (f,m)	8164	Licensed Practical Nurses
Nurse, Registered (f,m)	8162	Registered Nurses
Occupational Therapist (f)	8125	Occupational Therapists
Optometrist (f,m)	8115	Optometrists
Personnel Director (m)	1186	Personnel Managers
Pharmacist (f,m)	8124	Pharmacists
Photographer (m)	4734	Photographers
Physical Education Teacher	8456	Elementary & Secondary Teachers
Physical Scientist (m)	2624	Physical Scientists
Physical Therapist (f,m)	8127	Physical Therapists
Physician (f,m)	8112	Physicians
Physicist (f)	2624	Physical Scientists
Police Officer (m)	9414	Law Enforcement Officers
Priest (m)	8436	Clergy
Psychologist (f,m)	8418	Psychologists

Strong-Campbell Occupational Criterion Groups	Corresponding CIS Occupations	
Public Administrator (m)	1138	Public Administrators
Purchasing Agent (m)	1184	Purchasing Agents & Buyers
Radiologic Technician (f)	2654	Health Technicians/Technologists
	26542	Radiologic Technicians
Realtor (m)	7417	Real Estate Salespeople
Recreation Leader (f,m)	8486	Recreation Leaders
	8488	Recreation Aides
	8482	Recreation Program Directors
Reporters (f,m)	2176	Writers & Editors
Sales Manager (m)	1162	Sales & Service Managers
School Superintendent (m)	1136	Education Administrators
Secretary (f)	1412	Secretaries
	1414	Stenographers
Skilled Crafts (including carpenters, electricians, tool & die makers) (m)...	4254	Carpenters
	5626	Electricians
	5462	Tool & Die Makers
Social Science Teacher (f,m)	8456	Elementary & Secondary Teachers
	2144	Social Scientists
	21442	Sociologists
Social Worker (f,m)	8416	Caseworkers
Speech Pathologist (f,m)	8128	Speech Pathologists /Audiologists
Veterinarian (f,m)	8114	Veterinarians
Vocational Agriculture Teacher (m)	8454	University & College Teachers
	8456	Elementary & Secondary Teachers
YMCA Staff (f)	8486	Recreation Leaders
	8482	Recreation Program Directors

Source: "Descriptions of the Occupational Criterion Groups (Appendix C), Manual for the Strong-Campbell Interest Inventory, Stanford University Press, 1974, pp. 92-98.

Career Information System
Revised July, 1978

TITLE: USING CIS WITH WORKER TRAIT GROUPS
by Fran Miller, Mike McKeever, John Clyde CIS Eugene, Oregon

OBJECTIVE: To identify CIS occupational information pertaining to the 114 Worker Trait Groups

TIME:

MATERIALS & FACILITIES NEEDED:

Lists of Worker Trait Groups (WTG's) related to an individual's interests and aptitudes; a copy of the Worker Trait Groups/CIS Index (see following pages); printed CIS Occupational Information (User's Handbook needed for computer version); Dictionary of Occupational Titles, Third Education, Volume II.

PROCEDURES:

Several testing instruments and occupational information indexes[1] identify Worker Trait Groups in the Dictionary of Occupational Titles, Third Edition, Volume II, which relate to the individual's aptitudes and/or interests. Individuals using such instruments can get localized occupational information from CIS. The following table provides a cross-reference between WTG's and CIS occupational titles.

The WTG's categorize jobs on the basis of worker relations to data, people, and things, while CIS occupations reflect similarities in job content. While there are similarities between the two methods, there are also differences and consequently you cannot expect to find a one-to-one match. This does not mean one method is right and the other wrong; they simply reflect two different ways of organizing occupations. The importance of the index is in helping people locate information about the occupations in the WTG's.

Table Format

On the left side of the table are the numbers and names of the appropriate Worker Trait Groups, grouped into Areas of Work as they are in the DOT. On the right side of the table are the numbers and titles of the CIS occupations which are related to each WTG. When a WTG relates directly to a CIS occupation and its specialties, the table lists the CIS number and titles.

[1] Some of these are the General Aptitude Test Battery (GATB), Interest Inventory, Ohio Vocational Interest Survey (OVIS), Appalachian Educational Laboratory/Career Information System (AEL/CIS), and Systems Exploration and Research for Career Help (SEARCH).

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When a WTG relates to only part of a CIS occupation, it lists those specialties which relate to the particular WTG below the CIS occupational number and title. Some WTG's contain few occupations with very small employment so there is no directly related CIS occupations; in those cases the table may suggest some other occupations to see.

WORKER TRAIT GROUPS/CIS INDEX

Occupational Information Related to Worker Trait Groups

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Art	
226 Instructive Work, Fine Arts, Theater, Music, and Related Fields	See 8456 Elementary and Secondary Teachers
228 Decorating and Art Work	2366 INTERIOR DESIGNERS AND DECORATORS
230 Photography and Motion Picture Camera Work	4734 PHOTOGRAPHERS
232 Art Work	4146 FLORAL DESIGNERS
	4442 CLOTHES DESIGNERS-PATTERNMAKERS Specialties: Clothes Designers
	4724 COMMERCIAL ARTISTS AND DESIGNERS
234 Artistic Restoration, Decoration, and Related Work	See 2366 Interior Designers & Decorators See 4724 Commercial Artists & Designers
Business Relations	
237 Administration	1132 HOTEL AND MOTEL MANAGERS
	1134 HEALTH SERVICE ADMINISTRATORS
	1136 EDUCATION ADMINISTRATORS Specialties: Principals Deans
	1138 PUBLIC ADMINSTRATORS Specialties: City Managers Managers of Public Utilities

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Business Relations	
237 Administration (cont.)	1144 BUSINESS EXECUTIVES
	1146 BUSINESS MANAGERS
	1154 PRODUCTION SUPERINTENDENTS
	1162 SALES AND SERVICE MANAGERS Specialties: Sales Managers
	1186 PERSONNEL OFFICERS Specialties: Industrial Relations Directors Personnel Managers
	2164 SOCIAL PROGRAM PLANNERS
	2314 LAND USE PLANNERS
	2674 SANITARIANS Specialties: Sanitarians
	8458 EDUCATION PROGRAM SPECIALISTS
	See 1172 Military Officers
239 Contract Negotiating and Related Work	See 1184 Buyers and Purchasing Agents
241 Business Training	See 1186 Personnel Officers See 1411 Office Managers
243 Supervisory Work (Clerical, Sales, and Related Activities)	7116 SHIPPING AND RECEIVING CLERKS Specialties: Shipping Clerks
	See 1411 Office Managers
245 Managerial Work	1136 EDUCATION ADMINISTRATORS Specialties: Division Heads
	1138 PUBLIC ADMINISTRATORS Specialties: Parks Managers
	1152 CONSTRUCTION SUPERINTENDENTS
	1162 SALES AND SERVICE MANAGERS Specialties: Merchandise Managers

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Business Relations	
245 Managerial Work (cont.)	1186 PERSONNEL OFFICERS Specialties: Employment Managers
	1411 OFFICE MANAGERS
	4164 FARMERS AND RANCHERS Specialties: Farm Managers
	6128 RAILROAD CONDUCTORS
	6184 SHIP OFFICERS AND ENGINEERS Specialties: Masters, Ship
	8182 FUNERAL DIRECTORS AND EMBALMERS Specialties: Funeral Directors
	8424 SOCIAL SERVICE SPECIALISTS Specialties: Community Organizations Workers
	8462 LIBRARIANS
	8482 RECREATION PROGRAM DIRECTORS
	See 1142 Small Business Operators
248 Consultative and Business Services	See 1636 Loan Officers
250 Interviewing, Information Giving, and Related Work (Vocational, Educational, and Related Activities)	8424 SOCIAL SERVICE SPECIALISTS Specialties: Employment Interviewers
252 Accounting, Auditing, and Related Work	1614 ACCOUNTANTS AND AUDITORS
	1634 APPRAISERS AND UNDERWRITERS
	1636 LOAN OFFICERS

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Business Relations	
254 Title and Contract Search and Analysis and Related Work	8433 LEGAL ASSISTANTS
256 Corresponding and Related Work	See 1412 Secretaries See 1428 Library Assistants
258 Information Gathering, Dispensing, Verifying, and Related Work	1422 TEACHER AIDES 1424 TRAVEL AGENTS Specialties: Travel Clerks 1452 RECEPTIONISTS 1428 LIBRARY ASSISTANTS 8428 SOCIAL SERVICE AIDES Specialties: Human Resource Aides Counselor Assistants
Clerical Work	
261 Scheduling, Dispatching, Expediting, and Related Work	6126 AIR TRAFFIC CONTROLLERS
263 Secretarial and Related Work	1412 SECRETARIES
265 Facilities, Services, and Movement Allocating and Expediting Work	1424 TRAVEL AGENTS Specialties: Reservation Agents Ticket Agents 8488 RECREATION AIDES See 1646 Railroad Clerks
267 Paying and Receiving (Banks and Other Establishments)	1644 BANK TELLERS Specialties: Collection and Exchange Tellers 7122 MAIL CARRIERS AND POSTAL CLERKS Specialties: Postal Clerks
269 Cashiering (Drug Stores, Theatres, Restaurants, and Related Establishments) . .	1642 CASHIERS AND CHECKERS 1644 BANK TELLERS Specialties: Tellers

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS	
Clerical Work		
271 Inspecting and Stock Checking	1646	RAILROAD CLERKS Specialties: Freight Clerks
	2672	QUALITY CONTROL INSPECTORS Specialties: Subassembly Inspectors
	7116	SHIPPING AND RECEIVING CLERKS Specialties: Receiving Clerks
	7118	STOCK CLERKS Specialties: Stock Clerks Parts Clerks
274 Typesetting, Reproducing, and Related Machine Work	1686	COMPUTER OPERATORS
	1688	KEYPUNCH OPERATORS
	See 4766	Printing Production Occupations
276 Classifying, Filing, and Related Work	1416	CLERK TYPISTS
	1646	RAILROAD CLERKS Specialties: Yard Clerks
	7122	MAIL CARRIERS AND POSTAL CLERKS Specialties: Mail Carriers
	See 1418	General Office Clerks
278 Stenographic and Related Work	1414	STENOGRAPHERS
	1415	SHORTHAND REPORTERS
280 Computing and Related Recording	1418	GENERAL OFFICE CLERKS
	1616	BOOKKEEPERS
	1692	OFFICE MACHINE OPERATORS Specialties: Bookkeeping-Machine Operators Calculating Machine Operators

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Clerical Work	
282 Sorting, Inspecting, Measuring, and Related Work	2352 SURVEYOR'S HELPERS
	4538 LUMBER GRADERS AND INSPECTORS
	4544 VENEER DRYING OCCUPATIONS Specialties: Dry Clipper Offbearers Drier Grader Offbearers
	5934 PHOTOFINISHERS Specialties: Photographer Checkers & Assemblers
	See 2672 Quality Control Inspectors See 4464 Laundry and Dry Cleaning Workers
287 Typing and Related Recording	1412 SECRETARIES
	See 1416 Clerk Typists See 1418 General Office Clerks See 1692 Office Machine Operators
289 Routine Checking and Recording	See 1418 General Office Clerks See 1646 Railroad Clerks See 7116 Shipping and Receiving Clerks
291 Switchboard Service	1454 TELEPHONE AND TELEGRAPH OPERATORS Specialties: Telephone Operators
Counseling, Guidance and Social Work	
294 Social Science, Psychological, and Related Research	2144 SOCIAL SCIENTISTS
	8418 PSYCHOLOGISTS Specialties: Experimental Psychologists
296 Guidance and Counseling	8414 COUNSELORS
	8416 CASEWORKERS
	8418 PSYCHOLOGISTS Specialties: Counseling Psychologists School Psychologists
	8422 PAROLE AND PROBATION OFFICERS

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title		CIS OCCUPATIONS	
	Counseling, Guidance, and Social Work		
296	Guidance and Counseling (cont.)	8424	SOCIAL SERVICE SPECIALISTS Specialties: Community Relations Advisors
		8428	SOCIAL SERVICES AIDES Specialties: Case Aides
		8436	CLERGY
	Crafts		
299	Supervisory Work (Farming, Logging, Manufacturing, Processing, Construction, Transportation, and Related Activities) . . .	6184	SHIP OFFICERS AND ENGINEERS Specialties: Engineers Tugboat Captains Pilots, Ship Dredgemates
		7824	CHEFS AND DINNER COOKS Specialties: Chefs and Dinner Cooks
		See 1154	Production Superintendents
		See 4164	Farm Managers
305	Supervisory Work (Farming, Logging, Manufacturing, Processing, Construction, Transportation, and Related Activities) . . .	See 1152	Construction Superintendents
		See 1162	Sales and Service Managers
308	Costuming, Tailoring, and Dressmaking	4446	SEAMSTRESSES AND TAILORS Specialties: Master Tailors Dressmakers
310	Cooking and Related Work	7824	CHEFS AND DINNER COOKS Specialties: Cooks
		7826	FRY COOKS

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS	
Crafts		
312 Craftsmanship and Related Work	2644	OPTICIANS Specialties: Opticians Instrument Makers
	2655	DENTAL LABORATORY TECHNICIANS
	3112	AUTOMOBILE MECHANICS
	3114	TRUCK AND HEAVY EQUIPMENT MECHANICS
	3115	FARM EQUIPMENT MECHANICS
	3116	AIRCRAFT MECHANICS
	3118	SMALL ENGINE REPAIRERS
	3142	MILLRIGHTS
	3146	HEATING AND COOLING SYSTEM MECHANICS
	3164	OFFICE MACHINE REPAIRERS
	3165	COMPUTER REPAIRERS
	3166	TELEPHONE INSTALLERS-REPAIRERS
	3168	RADIO AND TV SERVICE TECHNICIANS
	3169	APPLIANCE REPAIRERS Specialties: Vacuum Cleaner Repairers Sewing Machine Repairers
	3184	JEWELERS
	3186	INSTRUMENT REPAIRERS
	3422	BUILDING MAINTENANCE WORKERS
	4254	CARPENTERS Specialties: Maintenance Carpenters Accoustical Carpenters Carpenters Shipwrights Tank Builders and Erectors
	4264	BRICKLAYERS Specialties: Bricklayers
	4274	PLUMBERS
	4276	FLOOR LAYERS Specialties: Carpet Layers

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS	
Crafts		
312 Craftsmanship and Related Work (cont.) . . .	4278	ROOFERS
	4286	CONSTRUCTION LABORERS Specialties: Blasters
	4326	MEAT CUTTERS Specialties: All-Around Butcher
	4442	CLOTHES DESIGNERS-PATTERNMAKERS Specialties: Patternmakers
	4446	SEAMSTRESSES AND TAILORS Specialties: Seamstresses Alteration Tailors
	4494	UPHOLSTERERS Specialties: Auto Upholsterers Furniture Upholsterers
	4496	SHOE REPAIRERS
	4766	PRINTING PRODUCTION OCCUPATIONS Specialties: Compositors Paste-up Camera Operators Transferers or Plate-Makers Photo Engravers
	5422	METALWORKING PATTERNMAKERS Specialties: Wood Patternmakers Plastic Patternmakers
	5424	MOLDERS Specialties: Molders Coremakers
	5462	TOOL AND DIE MAKERS Specialties: Bench Tool Makers Stamper Die Makers
	5468	SAW FILERS AND TOOL SHARPENERS Specialties: Saw Filers Tool Grinders

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Crafts	
312 Craftsmanship and Related Work (cont.) . . .	5483 STRUCTURED METAL AND BOILER MAKERS Specialties: Ornamental Ironworkers Boiler Makers
	5484 SHEETMETAL WORKERS Specialties: Sheetmetal Workers
	5485 SHIPFITTERS AND RIGGERS
	5486 BODY AND FENDER REPAIRERS Specialties: Auto-Body Repairers Truck Body Builders
	5488 BLACKSMITH AND FORGE SHOP WORKERS Specialties: Blacksmiths Farriers
	5624 LINEPERSONS Specialties: Cable Splicers Line Erectors Line Installer-Repairers
	5626 ELECTRICIANS Specialties: Electricians Electronic Mechanics Electrical Repairers
	5934 PHOTOFINISHERS Specialties: Photograph Retouchers Developers
	5982 HANDCRAFTERS
	6188 PILOTS AND FLIGHT ENGINEERS Specialties: Flight Engineers
	8182 FUNERAL DIRECTORS AND EMBALMERS Specialties: Embalmers
	See 4724 Commercial Artists & Designers See 5482 Welders
319 Precision Working	4242 PAINTERS Specialties: Painters Shipyard Painters Paper Hangers
	4244 PLASTERERS AND DRYWALL INSTALLERS Specialties: Lathers Plasterers
	4248 GLAZIERS

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Crafts	
319 Precision Working (cont.)	4254 CARPENTERS Specialties: Rough Carpenters
	4264 BRICKLAYERS Specialties: Tilesetters
	4276 FLOOR LAYERS Specialties: Floor Layers
	4324 BAKERS Specialties: Bakers
	5483 STRUCTURAL METAL & BOILER MAKERS Specialties: Structural Steel-workers
	5686 ELECTRONICS ASSEMBLERS Specialties: Electronics Assemblers
322 Manipulating	3169 APPLIANCE REPAIRERS Specialties: Appliance Repairers
	3455 JANITORS Specialties: Janitors
	4144 GROUNDSKEEPERS AND GARDENERS Specialties: Groundskeepers Greenskeepers
	4166 FARM AND RANCH HANDS Specialties: Dairy Hands
	4242 PAINTERS Specialties: Rough Painters Structural Steel Painters
	4244 PLASTERERS AND DRYWALL INSTALLERS Specialties: Drywall Applicators Drywall Finishers or Tapers
	4246 CEMENT MASONS

WORKER TRAIT GROUPS/CIS INDEX (cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Crafts	
322 Manipulating (cont.)	4286 CONSTRUCTION LABORERS Specialties: Insulation Workers Construction Workers Highway Maintenance Workers
	4326 MEAT CUTTERS Specialties: Meat-cutters Chicken Butchers Fish Butchers
	4328 COMMERCIAL FISHERMEN/WOMEN
	4494 UPHOLSTERERS Specialties: Upholsterers
	4514 FALLERS AND BUCKERS
	4552 PLYWOOD FINISHING OCCUPATIONS Specialties: Panel Patchers
	4766 PRINTING PRODUCTION OCCUPATIONS Specialties: Bookbinders
	5421 METAL REFINING OCCUPATIONS Specialties: Tappers
	5426 FOUNDRY WORKERS Specialties: Chippers & Grinders
	5482 WELDERS Specialties: Arc Welders Combination Welders Gas Welders
	5483 STRUCTURAL METAL & BOILER MAKERS Specialties: Reinforcing Iron-workers
	5686 ELECTRONICS ASSEMBLERS Specialties: Capacitor Assemblers Electrical Control Assemblers
	5924 RUBBER AND PLASTICS FABRICATORS Specialties: Roll Builders Cutter Hands
	5926 PRODUCTION PAINTERS & FINISHERS

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Crafts	
322 Manipulating (cont.)	5934 PHOTOFINISHERS Specialties: Negative Cutters & Spotters
	5966 PRODUCTION ASSEMBLERS Specialties: Assemblers Line Assemblers
	6174 RAILROAD BRAKE OPERATORS Specialties: Road Freight Brake Couplers Yard Couplers
	9426 FIRE FIGHTERS
	See 4446 Seamstresses and Tailors See 4464 Laundry and Dry Cleaning Workers See 5424 Molders See 5472 Machine Tool Operators
Education and Training	
333 Supervisory and Instructive Work (Nursing and Related Services)	8116 DIETITIANS Specialties: Therapeutic Dietitians Dietetic Educators
335 Industrial Training	NONE
337 Vocational Education	See 8456 Elementary and Secondary Teachers
339 Flight and Related Training	See 6188 Pilots and Flight Engineers
341 High School, College, University, and Related Education	8454 UNIVERSITY AND COLLEGE TEACHERS
	8456 ELEMENTARY AND SECONDARY TEACHERS Specialties: Secondary Teachers

WORKER TRAIT GROUPS/CIS INDEX
(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Education and Training	
343 Kindergarten, Elementary School, and Related Education	8456 ELEMENTARY AND SECONDARY TEACHERS Specialties: Elementary Teachers
	See 8459 Child Care Workers
345 Miscellaneous Instructive Work	8428 SOCIAL SERVICE AIDES Specialties: Program Aides
	8486 RECREATION LEADERS
	See 8488 Recreation Aides
347 Physical Education	See 8454 University and College Teachers See 8456 Elementary & Secondary Teachers
349 Training Services	See 1186 Personnel Officers
351 Animal Training	NONE
Elemental Work	
354 Signaling and Related Work	See 4286 Construction Laborers See 6172 Railroad Engineers
356 Feeding-Offbearing	4324 BAKERS Specialties: Bakers
	4348 CANNERY/FOOD PROCESSING WORKERS
	4522 LOG HANDLING OCCUPATIONS Specialties: Pond Workers
	4526 VENEER PRODUCTION OCCUPATIONS Specialties: Veneer Fishtail Sawyers
	4536 SAWMILL CHAIN OFFBEARERS Specialties: Chain Offbearers
	4542 SAWMILL WASTE RECOVERY OCCUPATIONS Specialties: Hog Tenders
	4544 VENEER DRYING OCCUPATIONS Specialties: Clipper Operators Drier Feeders
	4554 PLYWOOD AND SAWMILL LABORERS
	5488 BLACKSMITH & FORGE SHOP WORKERS Specialties: Forge Helpers
	See 4464 Laundry & Dry Cleaning Worker See 5421 Metal Refining Occupations

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(cont.)

WORKER TRAIT GROUPS Page Number and Title		CIS OCCUPATIONS	
Elemental Work			
360 Handling	3126	OILERS	
	3454	ROOM CLEANERS	
	3455	JANITORS Specialties:	Porters Window Cleaners
	3456	DOMESTIC SERVICE WORKERS	
	4168	SEASONAL FARM LABORERS	
	4286	CONSTRUCTION LABORERS Specialties:	Road Laborers Construction Workers
	4288	RAILROAD LABORERS Specialties:	Track Layers
	4464	LAUNDRY & DRY CLEANING WORKERS Specialties:	Laundry Laborers Folder Markers
	4516	CHOKERSETTERS	
	4548	PLYWOOD LAY-UP OCCUPATIONS Specialties:	Core Feeders Sheet Turners
	4552	PLYWOOD FINISHERS Specialties:	Sander Feeders
	4554	PLYWOOD AND SAWMILL LABORERS	
	4574	PULP AND PAPER WORKERS Specialties:	Rags Laborers
	5421	METAL REFINING OCCUPATIONS Specialties:	General Laborers
	5426	FOUNDRY WORKERS Specialties:	General Foundry Workers Shakeout Oven Workers
	5914	PETROLEUM PROCESSING OCCUPATIONS Specialties:	Petroleum Refining Laborers
	5924	RUBBER AND PLASTICS FABRICATORS Specialties:	General Laborers
	5966	PRODUCTION ASSEMBLERS Specialties:	Auto Assemblers Production Assemblers

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(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Elemental Work	
360 Handling (cont.)	6156 YARDING AND LOADING OCCUPATIONS Specialties: Head Loaders
	7112 CAR LOADERS Specialties: Car Loaders
	7126 PACKERS AND WRAPPERS Specialties: Hand Packagers
	7134 GROCERY BAGGERS
	7852 BARTENDERS Specialties: Tap Room Attendants
	7884 KITCHEN HELPERS
	See 4166 Farm and Ranch Hands See 5686 Electronics Assemblers See 6174 Railroad Brake Operators
Engineering	
371 Engineering Research and Design	2316 ARCHITECTS
	2354 ENGINEERS
373 Sales Engineering	See 2354 Engineers See 7414 Commercial Salespeople
375 Engineering, Scientific, and Technical Coordination	1684 PROGRAMMERS AND SYSTEMS ANALYSTS Specialties: Systems Analysts
	4126 FISH AND WILDLIFE SPECIALISTS Specialties: Fish Culturists
377 Drafting and Related Work	2364 DRAFTERS

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WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Engineering	
379 Technical Work, Engineering and Related Fields	2356 ENGINEERING TECHNICIANS 2672 QUALITY CONTROL INSPECTORS Specialties: Quality Control Technicians
381 Engineering and Related Work	See 2354 Engineers
383 Industrial Engineering and Related Work . . .	See 2354 Engineers
385 Surveying, Prospecting, and Related Work . .	2352 SURVEYORS See 2356 Engineering Technicians See 6188 Pilots and Flight Engineers
387 Technical Writing and Related Work	See 2174 Freelance Writers See 2176 Writers and Editors
Entertainment	
390 Creative Entertainment Work, N.E.C.	9866 PERFORMING ARTISTS
392 Dramatics	9866 PERFORMING ARTISTS Specialties: Actors
394 Musical Work, Instrumental	9866 PERFORMING ARTISTS Specialties: Musicians
396 Musical Work, Vocal	9866 PERFORMING ARTISTS Specialties: Singers
398 Rhythmics	9866 PERFORMING ARTISTS Specialties: Dancers

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(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS	
Entertainment		
400 Radio Announcing and Related Work	9824	RADIO AND TELEVISION ANNOUNCERS
402 Amusement and Entertainment Work, Physical . .	9868	PROFESSIONAL ATHLETES Specialties: Athletes
404 Miscellaneous Amusement and Recreation Work	NONE	
406 Specialty Entertainment Work	See 9866	Performing Artists
408 Modeling and Related Work	9842	MODELS
Farming, Fishing, and Forestry		
411 Cropping, Animal Farming, Gardening, and Related Work	4164	FARMERS AND RANCHERS Specialties: Hog Farmers Dairy Farmers
	See 4144	Groundskeepers and Gardeners
413 Technical Work, Science and Related Fields .	4128	FORESTRY TECHNICIANS
Investigating, Inspecting, and Testing		
416 Investigating, Protecting, and Related Work .	2672	QUALITY CONTROL INSPECTORS Specialties: Building Inspectors
	2674	SANITARIANS Specialties: License Inspectors Safety and Sanitary Inspectors
	4126	FISH AND WILDLIFE SPECIALTIES Specialties: Fish and Game Wardens
	9414	LAW ENFORCEMENT OFFICERS Specialties: Police Sergeants, Precinct Detectives

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(cont.)

WORKER TRAIT GROUPS Page Number and Title		CIS OCCUPATIONS	
	Investigating, Inspecting, and Testing		
416	Investigating, Protecting, and Related Work (cont.)	9426	FIRE FIGHTERS
		9436	MILITARY ENLISTED PERSONNEL
418	Materials Analysis and Related Work	2656	LABORATORY TESTERS
		8124	PHARMACISTS
420	Appraising and Investigating Work	2672	QUALITY CONTROL INSPECTORS Specialties: Construction Inspectors
		2674	SANITARIANS Specialties: Sanitary Inspectors
		See 1634	Appraisers and Underwriters
422	Transporting and Test Driving	6172	RAILROAD ENGINEERS
		6188	PILOTS AND FLIGHT ENGINEERS Specialties: Airplane Pilots, Commercial
	Law and Law Enforcement		
425	Legal and Related Work	8432	LAWYERS
427	Protecting and Related Work	9414	LAW ENFORCEMENT OFFICERS Specialties: Jailers
		9476	SECURITY GUARDS
	Machine Work		
430	Set Up and/or All-Round Machine Operating . .	4566	WOODWORKING MACHINE OPERATORS Specialties: Wood Machinists Machine Setters
		4586	CABINETMAKERS

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WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Machine Work	
430 Set Up and/or All-Round Machine Operating . . (cont.)	5422 METALWORKING PATTERNMAKERS Specialties: Metal Patternmakers
	5462 TOOL AND DIE MAKERS Specialties: Tool and Die Makers
	5464 MACHINISTS
	5472 MACHINE TOOL OPERATORS Specialties: Turret-lathe Operators
	5945 NUCLEAR POWER TECHNICIANS Specialties: Reactor Operators Power Reactor Operators
	See 5914 Petroleum Processing Occupations
433 Set Up and Adjustment	See 4574 Pulp and Paper Workers
435 Operating-Controlling	1692 OFFICE MACHINE OPERATORS Specialties: Duplicating Machine Operators
	4288 RAILROAD LABORERS Specialties: Trackers
	4448 SEWING MACHINE OPERATORS
	4464 LAUNDRY AND DRY CLEANING WORKERS Specialties: Machine Pressers
	4522 LOG HANDLING OCCUPATIONS Specialties: Cut-off Sawyers
	4526 VENEER PRODUCTION OCCUPATIONS Specialties: Lathe Spotters Lathe Operators
	4528 PLANER MILL OCCUPATIONS
	4532 SAWMILL SAWING OCCUPATIONS
	4546 VENEER SALVAGE AND UPGRADING OCCUPATIONS Specialties: Jointer Operators

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WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Machine Work	
435 Operating-Controlling (cont.)	4552 PLYWOOD FINISHING OCCUPATIONS Specialties: Sander Operators Panel Sawyers
	4556 WOODWORKING MACHINE OPERATORS Specialties: Woodworking Machine Operators Cut-off Sawyers
	4554 PLYWOOD AND SAWMILL LABORERS
	4574 PULP AND PAPER WORKERS Specialties: Grinder Operators Power-Barker Operators Slitting Machine Operators Beater Engineers Digester Operators Paper Machine Back Tenders Fourdrinier-Machine Tenders
	4766 PRINTING PRODUCTION OCCUPATIONS Specialties: Lithographic Press Operators
	5421 METAL REFINING OCCUPATIONS Specialties: Heaters
	5424 MOLDERS Specialties: Machine Molders
	5426 FOUNDRY WORKERS Specialties: Sand Mixers Furnace Operators
	5472 MACHINE TOOL OPERATORS Specialties: Drill Press Operators
	5918 RUBBER AND CHEMICAL PROCESSING OCCUPATIONS
	5934 PHOTOFINISHERS Specialties: Multiple Photographic Printer Operators

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(cont.)

WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Machine Work	
435 Operating-Controlling (cont.)	5944 BOILER OPERATORS Specialties: Stationary Engineers
	5946 SEWAGE PLANT OPERATORS
	6156 YARDING AND LOADING OCCUPATIONS Specialties: Donkey Engineers
	See 5488 Blacksmith & Forge Shop Workers See 5914 Petroleum Processing Occupations See 5924 Rubber and Plastics Fabricators
444 Driving-Operating	4166 FARM AND RANCH HANDS Specialties: Farm Hands
	4522 LOG HANDLING OCCUPATIONS Specialties: Log Handling Equipment Operators
	4534 SAWMILL DRYING OCCUPATIONS Specialties: Kiln Transfer Operators
	5945 NUCLEAR POWER TECHNICIANS Specialties: Waste Disposers
	6144 TRUCK DRIVERS
	6151 HEAVY EQUIPMENT OPERATORS
	6158 FORK LIFT OPERATORS
	7112 CAR LOADERS Specialties: Stevedores
	See 6156 Yarding & Loading Occupations
447 Tending	4324 BAKERS Specialties: Blenders
	4424 TEXTILE MACHINE OPERATORS
	4526 VENEER PRODUCTION OCCUPATIONS Specialties: Tippler Tenders Veneer Clippers
	4534 SAWMILL DRYING OCCUPATIONS Specialties: Kiln Operators Stacker Operators
	4542 SAWMILL WASTE RECOVERY OCCUPATIONS Specialties: Chippers
	4544 VENEER DRYING OCCUPATIONS Specialties: Veneer Driers Dry Clipper Operators

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WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Machine Work	
447 Tending (cont.)	4542 SAWMILL WASTE RECOVERY OCCUPATIONS Specialties: Chippers
	4544 VENEER DRYING OCCUPATIONS Specialties: Veneer Driers Dry Clipper Operators
	4546 VENEER SALVAGE AND UPGRADING OCCUPATIONS Specialties: Veneer Repairers, Machine Edge Gluers
	4548 PLYWOOD LAY-UP OCCUPATIONS Specialties: Hot-Press Operators Glue Mixers
	4574 PULP AND PAPER WORKERS Specialties: Beater Engineer Helpers Pulpers
	4766 PRINTING PRODUCTION OCCUPATIONS Specialties: Bindery Workers
	5421 METAL REFINING OCCUPATIONS Specialties: Pot Tenders
	5426 FOUNDRY WORKERS Specialties: Tumbler Operators
	5472 MACHINE TOOL OPERATORS Specialties: Automatic Grinder Operators Production Machine Operators Punch Press Operators
	5914 PETROLEUM PROCESSING OCCUPATIONS Specialties: Oven-Heater Helpers Carbon Plant Grinders
	5918 RUBBER AND CHEMICAL PROCESSING OCCUPATIONS Specialties: Tire Recappers Mixer Operators

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WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Machine Work	
447 Tending (cont.)	5944 BOILER OPERATORS Specialties: High and Low Pressure Firers
	5945 NUCLEAR POWER TECHNICIANS Specialties: Decontaminators
	7126 PACKERS AND WRAPPERS Specialties: Machine Packagers
	See 1692 Office Machine Operators See 4448 Sewing Machine Operators See 4464 Laundry & Dry Cleaning Workers See 5488 Blacksmith & Forge Shop Workers See 5924 Rubber and Plastics Fabricators
Managerial and Supervisory Work	
461 Supervisory Work (Service and Related Activities)	See 3454 Room Cleaners See 7824 Chefs and Dinner Cooks See 7854 Waiters and Waitresses
Mathematics and Science	
464 Health Physics	See 2624 Physical Scientists
466 Scientific Research	2318 ECOLOGISTS
	2611 LIFE SCIENTISTS
	2624 PHYSICAL SCIENTISTS
	2626 EARTH SCIENTISTS Specialties: Geologists Geophysicists Physical Oceanographers Hydrologists
	2628 SOIL SCIENTISTS
	4124 FORESTERS
468 Mathematics, Physical Sciences, and Related Research	1684 PROGRAMMERS AND SYSTEMS ANALYSTS Specialties: Programmers
	2332 MATHEMATICIANS AND STATISTICIANS
	2626 EARTH SCIENTISTS Specialists: Meteorologists

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WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Medicine and Health	
471 Surgery	See 8112 Physicians See 8113 Dentists
473 Medical, Veterinary, and Related Services . .	8112 PHYSICIANS
	8113 DENTISTS
	8114 VETERINARIANS
	8115 OPTOMETRISTS
	8122 CHIROPRACTORS
	8128 SPEECH PATHOLOGISTS/AUDIOLOGISTS
475 Therapeutic and Related Work	8125 OCCUPATIONAL THERAPISTS
477 Nursing, X-Ray, and Related Services	2654 HEALTH TECHNICIANS/TECHNOLOGISTS
	8117 PHYSICIAN'S ASSISTANTS
	8127 PHYSICAL THERAPISTS
	8162 REGISTERED NURSES
	8164 LICENSED PRACTICAL NURSES
	8174 DENTAL HYGIENISTS
	8176 DENTAL ASSISTANTS
479 Child and Adult Care	3456 DOMESTIC SERVICE WORKERS
	8166 NURSE AIDES AND ORDERLIES
	8168 EMERGENCY MEDICAL TECHNICIANS
	8459 CHILD CARE WORKERS

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WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS	
Merchandising		
482 Promotion and Publicity	1195	PUBLIC RELATIONS WORKERS
484 Purchase and Sales Work	1184	BUYERS AND PURCHASING AGENTS
486 Sales and Service Work	2644	OPTICIANS Specialties: Dispensing Opticians
488 Demonstration and Sales Work	7414	COMMERCIAL SALESPEOPLE
	7415	SECURITIES SALESPEOPLE
	7416	INSURANCE SALESPEOPLE
	7417	REAL ESTATE SALESPEOPLE
	7418	AUTOMOBILE SALESPEOPLE
	7422	BUSINESS SERVICES SALESPEOPLE
	7434	ROUTE SALESPEOPLE
	7454	SALESPERSONS
491 Delivery and Service Work, N.E.C.	See 7434 Route Salespeople	
493 Selling and Related Work	NONE	
Music		
496 Musical Work, Creative	See 9864 Performing Artists	
Personal Service		
499 Beautician and Barbering Services	8184	BARBERS
	8186	COSMETOLOGISTS Specialties: Electrologists Cosmetologists

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WORKER TRAIT GROUPS Page Number and Title	CIS OCCUPATIONS
Personal Service	
501 Customer Service Work, N.E.C.	7484 SALES CLERKS
503 Miscellaneous Customer Service Work	3124 SERVICE STATION ATTENDENTS
505 Accommodating Work	See 7854 Waiters and Waitresses
507 Miscellaneous Personal Service Work (Food Serving, Portering, Valeting, and Related Activities)	7852 BARTENDERS Specialties: Bartenders
	7854 WAITERS AND WAITRESSES
	7856 FLIGHT ATTENDANTS
	7888 BUS BOYS AND BUS GIRLS
	8186 COSMETOLOGISTS Specialties: Manicurists
	See 3456 Domestic Service Workers
509 Ushering, Messenger Service, and Related Work	1456 MESSENGERS
	7124 NEWSPAPER CARRIERS
511 Animal Care	4174 ANIMAL CARETAKERS
Photography and Communications	
514 Motion Picture Projecting, Photographic Machine Work, and Related Activities	See 4734 Photographers
516 Radio and Television Transmitting and Receiving	5664 BROADCAST TECHNICIANS

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WORKER TRAIT GROUPS Page Number and Title		CIS OCCUPATIONS
	Transportation	
519	Transportation Service Work	6142 BUS AND TAXI DRIVERS See 6174 Railroad Brake Operators
	Writing	
522	Journalism and Editorial Work	2176 WRITERS AND EDITORS
524	Creative Writing	2174 FREELANCE WRITERS
526	News Reporting and Related Work	2176 WRITERS AND EDITORS
528	Translating, Editing, and Related Work . . .	See 2176 Writers and Editors

TITLE: IF ONLY. . .

by Brad Paulsen
and Carole Ishimaru — Colorado CIS — Boulder, Colorado
revised by Jeff Wiles — Oregon CIS — Eugene, Oregon

OBJECTIVE: To provide students an awareness of how jobs can be made meaningful by changing attitudes/perspectives toward the job.

TIME: 1 week

MATERIALS & FACILITIES NEEDED:

CIS Terminal and/or Needle-Sort Print-Out Books
IF ONLY. . . Worksheets (attached)
Five speakers for a panel presentation

PROCEDURES:

1. Have students individually complete Parts I and II of the attached worksheet.
2. Invite a panel of five people in different occupations to speak to the class about their jobs without naming the company for which each works, nor the job name (they are to be given a maximum of five minutes each to talk about such things as interesting/uninteresting job duties, work environment, preparation for job, how they keep from being bored).
3. Have students guess each speakers occupation with a short explanation of the kinds of evidence that lead to the guess.
4. Ask speakers to identify their job name and company and to do any necessary clarification to summarize the presentation.
5. Have students individually complete Part III of worksheet.
6. Summary discussion questions?
   a. What makes work meaningful to people; how can this be maintained?
   b. When/why is it necessary for work to be meaningful?

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IF ONLY. . . Worksheet Name_____

Part I: Look through pages 7-14 of your User's Handbook. Choose an occupation that would probably be the last one on earth you'd choose to do.

1. The name and code number of this occupation is: _____

2. Go to the CIS terminal and/or Needle-Sort Print Out Books to read its description.

3. Pretend that you have been forced into this occupation. There are absolutely no other jobs available and you really need to do well in this job because you need the money, possible raise and good recommendation for future jobs. You must remain in this job for at least three consecutive years. How can you create a pleasant, meaningful experience for yourself in this occupation? List five suggestions:

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

Part II: Go through pages 7-14 again. Now choose an occupation that you think would be the very best one.

1. This occupation name and code number are: _____

2. Go to the CIS terminal and/or Needle-Sort Print Out Books to read its description.

3. List five situations that owuld make you despise this job:

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

Part III: After listening to the classroom speakers, choose one for which the following questions are to be answered:

1. The speaker's name and occupation are: _____

2. The speaker was enthusiastic about the occupation because:

3. The speaker was unenthusiastic about the occupation because:

4. What could you recommend that this person do to make the occupation even more meaningful (check CIS terminal and/or Needle-Sort Print Out Book description if you need additional information)?

TITLE: LEARNING PACKAGE
by Neil Branson Mohawk High School Marcola School District

OBJECTIVE: To use the CIS computer program in an effort to learn more about yourself in relation to the world of work.

TIME: Several days to a week depending upon the number of students involved.

MATERIALS & FACILITIES NEEDED:

- CIS User's Handbooks
- Learning package (sample follows)
- CIS Terminal
- Log-in instructions from terminal
- Dictionaries
- Occupational Outlook Handbook
- Access to Library
- Felt pens

PROCEDURES:

1. Each student works through the learning package, following the instructions carefully.
2. The staff member needs to keep all the materials and facilities available and the students informed about how to work through any problems they encounter.

NOTE: Items 1-5 in the learning package should be useful in helping process students through QUEST.

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Name _____

LEARNING PACKAGE

The purpose of this learning package is to allow you to utilize the Career Information System computer program in an effort to learn more about yourself in relation to the world of work. Through this program, you will be exposed to some possible occupation selections, ways to prepare, and institutions that offer that preparation for employment in any particular field of your choice. The program's most important feature is exposing you to careers, to the concept of preparation and to the fact that there are many avenues to training.

With this package you are given a Career Information System "User's Handbook." There will be instructions in this package and in the handbook that you will have to follow. (An important attribute for gaining and keeping employment is the ability to follow instructions.) You will follow the steps in the package in the order they are presented.

Before we begin, you must realize that the information, and the list of occupations that you receive, and the entire benefit you get from this program depends on what YOU put into the computer. You can change your input at any time. You can come back and do the program over and over (if time allows). There is no absolute truth or promises coming from this program. You will be given ideas about what you might like or be able to do based on what you tell the computer.

Do your work in pencil so you can change your answers when you want to.

1. Put your name on this learning package and on your User's Handbook.

2. Read page 1 of your Handbook. Which of these questions are you most interested in?

3. You are now going to fill out the QUEST questionnaire. Turn to page 2 in your Handbook. Read the information on the top of page 2. Remember, if you do not know how to answer a question, <u>seek help</u>. The way you answer these questions will determine the type of information you get back from the computer. Below are helpful hints to some of the questions. Use these hints, they will help you in determining your answers. READ EACH QUESTION & RESPONSE CAREFULLY.

QUEST QUESTIONS

Question #1. This means that if you can adapt to doing repetitive work, or to continuously doing the same work according to set procedures, sequences, or pace you should answer YES.

Question #2. Are you thorough and exacting when working with materials? Do you like activities involving numerical calculations, record preparation, or inspecting?

Question #3. Look up the word ANALYZE. Put the definition here: _____

_____

Question #4. Do you like to relate to people in situations involving more than giving or receiving situations?

Question #5. Look up the word PERSUADING and put the meaning down here:

_____

Question #6. Do you like accepting responsibility for the direction, control, or planning of an activity? If yes, then you probably would like a job requiring "decision-making".?

Question #7. Do you like work that requires you perform a variety of duties? Are you able to change from one task to another w/out loss of efficiency or composure? If you answered yes to these questions, then you should like a job requiring "change".

Question #8. Do you like to do work that where you are called upon to use creativity, self-expression, or imagination?

Question #10. If you can thread a needle, put small nuts and bolts together, pick up small objects, type well, work with small things, then your answer should be "High". Look up the word DEXTERITY. What does Finger Dexterity mean? _____

_____

Question #11. Can you pick out errors in your typing, find mistakes in writing? If so, then answer "High".

Question #13. This question is NOT asking you about calculus, trigonometry, or even algebra, but about simple addition, substraction, multiplication, and division.

Question #14. Have you been able to follow the instructions so far? Do you have to be told how to do things many times? Can you figure things out for yourself?

Question #17. Use a dictionary. Look up the word APPRENTICESHIP. Put the meaning of the word apprenticeship here: _____

_____

Question #21. The first response is asking you if you will take a job in the COUNTY, NOT COUNTRY (e.g., will you work only in Lane County?).

4. Now you have finished QUEST. Go back over and read it once more and check to make sure you circled the correct responses.

5. On page 6 of your User's Handbook, answer the question "What occupations are you now considering?" Write your answer here also: _____

_____

YOU WILL FIND A LIST OF OCCUPATIONAL TITLES AND CODES BEGINNING ON PAGE 8 OF YOUR HANDBOOK.

6. You are getting WARM. Soon you will be on the computer terminal. Before you go to the terminal, you should review the instructions on how to "log-in", what things you can do while you are answering the questionnaire, and what things you can do after you have answered it. Turn to page 27 of your Handbook to learn how to "log-in". Logging-in only means to get the terminal ready to respond to you and the information you are giving it. Read the instructions on page 27 about "How to Use the Computer Terminal " carefully. Your instructor will have additional instructions for your terminal.

Read the GENERAL PROGRAM INSTRUCTIONS on page 27 and reread the instructions for "log-in" procedures. Now take the following quiz.

_____

QUIZ

a. Type in _____ if you want to go to the beginning of the program.

b. The account number and password for our school is _____.

c. If the program types in "ILLEGAL ACCESS" you must _____.

d. When you are through with the computer, you type in _____.

e. Each time you have typed a command on the terminal, you must punch the _____ key to get the computer to respond.

_____

7. Moving right along, you need to read the instructions to QUEST found on page 28. Read over these instructions. You will make use of "HOW MANY, LIST, WHY NOT, and possibly BACK UP and CHANGE. NOW GET IT GOING . . . you are ready for the terminal.

A. Make arrangements to use the terminal, following the established procedures.

B. "Log-in", following the instructions on page 24 of your "User's Handbook".

C. You will type in QUEST and do the questionnaire. The terminal will tell you how to answer the questions.

D. Type in HOW MANY, after questions 5, 8, 12, 16, 17, & 20.

8. At the end of the questionnaire you will be told how many occupations are in your list.

9. If you have a long list, then look over the answers to the questions in your handbook. If there are some marked NO PREFERENCE, see if you can make a choice. Go through and make any changes in your book. Then type in CHANGE and the terminal will give you instructions on how to change answers. After you make the changes the terminal will tell you how many occupations are on your list. Type LIST to get a list.

10. Look over your list and then look back to page 6 of your handbook or on page 3 of this learning package and see if any of the occupations you listed there are not on your print-out. If there are any you were interested in and they were not in your print-out, type in WHY NOT and the occupation code number. The computer will tell you why these occupations were eliminated from your list. If all your chosen occupations are on your list, then look on pages 7 to 14 of your handbook and find an occupation that you might be interested in which is not listed on your print-out. Type in WHY NOT and the occupation's code number.

11. Find the part of the print-out where you typed in WHY NOT. The computer answered your request by giving you a list of questions and how you answered them. Because you answered these questions the way you did, the job you asked WHY NOT about was eliminated. Now look at the questions in your handbook and see if you would change your answers if it would mean being able to be employed in that job. If it is about ability, would you gain the needed ability? If it is an interest, would the job make the interest more enjoyable? In the space that follows, write down the question numbers and answers you would have to change, and the way you would change them to have the occupation show up on your print-out:

12. Type CHANGE and follow the instructions for changing any answers you listed above. Then type LIST. You are going to be looking at your list and deciding what jobs sound interesting to you and which ones you would like to find out about. (You may want to type STOP and come back later.)

    A. Underline with a GREEN pen the jobs you have heard about and that you would like to get some information about, or jobs that just sound interesting.

    B. Underline with a BLUE pen the jobs that you have never heard about.

    C. Underline with a YELLOW pen the jobs you have never heard about and that sound interesting to you.

    D. Underline with a RED pen the jobs that you think you would not like to do at all.

    E. Now of all the jobs that you think you would like to get some more information about, choose the one that is most interesting to you. Also choose one of the jobs that you would not like to do, or one that you know little about and are not really interested in. Underline both of them with a BLACK pen.

13. Now you have two occupations you are going to get some information about. For the one you marked as being least interesting or that you knew little about, (underlined in BLACK and RED, or YELLOW), you need to write the occupation and its code number in the space provided in part A of item 18 on page 6 of this learning package.

14. For the one that is most interesting to you, (underlined in BLACK and GREEN), you need to write in the occupation and its code number in the space provided in item 22, page 6 of this learning package.

15. Before you go to the computer terminal, you need to get another piece of information so you can move quickly through the program. Look on page 25 of your User's Handbook. There you find listed a number of information topics that the terminal contains for the list of schools on pages 20-23 of the Handbook. Choose topics in which you are interested for the schools that you might attend. For example, do you want to know about cost? Then, put down code 85. What about living quarters? Look at codes 80 to 84. Look them all over and choose the five that seem most important to you. Now write those code numbers in question 21 on page 6 of this learning package.

16. Read all the "Instructions to INFO Files" on page 29 of your Handbook. This is the type of information you can get from the computer terminal.

17. Make arrangements to use the computer terminal, following the established procedures.

18. Log-in on the computer using the same procedures as the first time. Look back to page 3 of this learning package for assistance.

    A. When the computer asks you what you want to do, type in DESC_____. You will be using this code number in this instruction (instruction A) and in instruction B, C, E & F which follow. You will use the first two digits of the code number in instruction D.

    B. When the computer is through with the description, type in BIB and the same code number from instruction A above.

    C. Next, you will type in PREP and the same code number from instruction A.

    D. Type in PREP and the FIRST TWO DIGITS for the code in instruction A.

    E. Now type in VISIT and the occupation code number from instruction A.

    F. This time, type in XPLOR and the same occupation code number.

19. Now read the PREP statement to see what types of Programs of Study and Training can help you get into this field. Type in PROG _____. When the computer is through with the information it has to give you, it will ask you if you want a list of schools. Type in YES.

20. After the computer has told you the schools, choose three of the schools that you want to get more information about. Their codes are next to their names in the list that has just been printed, and on pages 20-23 of your User's Handbook. Example: 21113 SOUTHERN OREGON STATE COLLEGE, ASHLAND. It is a five-digit number!!! Now, type in SCH and those three school codes. Separate each school code with a comma. You can type in FEWER THAN THREE, but do not type in MORE THAN THREE. There is room on the paper for only three schools at a time.

21. After you type in the school codes, the computer will print "WHAT DO YOU WANT TO KNOW ABOUT THE SCHOOL?" TYPE IN THE SCHOOL TOPICS. (These are the ones you chose earlier.)

    _____, _____, _____,

    _____, _____

22. Now you are going to get a description of the occupation from your print-out that you thought you would be most interested in. Type in DESC_____.

23. Now you have some more information to work with away from the classroom. Type in STOP, and log-out of the computer. Bring your print-out with you.

Now you are going to work with the information you have received from the computer terminal.

24. Read the description of the occupation that the computer gave you.

    A. Underline with a YELLOW pen the things that you already knew about the occupation.

    B. Take a GREEN pen and underline the things that sound the most interesting about the occupation.

    C. Use a RED pen to underline the things about the occupation that you do not like.

    D. Is the job like you thought it would be? _____

    E. Did you know this much about the occupation before you got the information? _____

    F. Is the employment outlook very good for this occupation? _____

    G. Is the salary one you could live on? _____

25. Now read the bibliography that was given to you. It will be necessary to work with materials from the library, if one is available.

    A. First, get the Occupational Outlook Handbook and find the information for your occupation. Is the description in the Handbook like the ones the computer terminal gave? _____

    B. If there are any other books listed in the bibliography, find them in the library. Look up the information that relates to the occupation you are interested in and read it.

    C. Use the Card Catalog in the library and see if there are any books in the library that deal with your occupation. Write down the titles, authors, and copyright dates of the books: _____

    _____

    _____

26. Examine the portion of the printout that you got when you typed in PREP and a two-digit number. Use a GREEN pen to underline the high school subjects that you have taken, a YELLOW pen to underline the courses you are going to take, and a RED pen to underline the courses you are not going to take or have not been offered to you.

27. Working with this same information, underline in GREEN any of the occupations, listed below the school subjects, that sound interesting to you. Sometime when there is time available on the computer, you can go back and get more information about these jobs.

28. Look at the VISIT file that was given to you on your printout. Have you ever visited a business that hires people who do the type of work you are interested in? _____ Would you like to make a visit? _____ If you answered yes on this last question, see your instructor and tell him you would like to make a visit.

29. For some occupations there are Explorer Troops that will help people get good information and training. Is there a local Explorer Troop for your occupation? _____ Have you ever considered joining an Explorer Troop? _____

30. The computer has given you some information about the programs of study where you typed in PROG and a three-digit number. Look at this part and underline the type of training program you would like to go through with a GREEN pen. Underline anything that you dislike about the programs with a RED pen.

31. Now look at the list of schools you received that have training programs for the occupation you are interested in.

    A. Use a GREEN pen to underline the schools that interest you.

    B. Use a RED pen to underline the schools that don't interest you at all.

    C. Use a GREEN pen to underline anything you like about the program at each school.

    D. Use a RED pen to underline anything you dislike about the school programs.

32. Below this information you have received more specific information about three or fewer schools that were in your printout. Examine the information that you got from the topics you chose.

    A. Underline any information that you like about the schools with a GREEN pen.

    B. Underline any information that might make you not want to go to that school in RED.

33. Turn to page 24 of your User's Handbook and underline with GREEN any other school topics that you would like to get about these or any other schools that appeared in your printout.

34. Now look at the description of the occupation that you were most interested in. (Should be the last part of your printout).

    A. Underline in RED anything that you do not like about the occupation.

    B. Did the description of the occupation tell you anything that you did not already know about the occupation? _____

    C. Are you still very interested in this occupation? _____

Now that you have gone through the computer system once, you can use it to get an idea of what specific aptitudes and abilities will affect your ability to get a job.

35. Look again at the Handbook and the way you have answered the questions. Look at questions 1 through 8. If you have marked any of them with NO then circle the number of that question.

36. Look at the question 9 through 16. If you have marked any of them with anything but "High", circle the number of that question.

37. Go to the computer following the same steps you did the first two times.

38. Do the QUEST questionnaire again. This time, answer all the questions the same way except for those ones you have circles in your book. Answer questions 1through 8 with YES. And questions 9 through 16 with High. AFTER QUESTIONS 5, 8, 12, and 16 type in "HOW MANY."

39. At the end of the questionnaire, the computer terminal will tell you how many occupations are in your list. Do NOT get your list. Type in STOP and log-out of the computer terminal. Take the printout with you.

40. Now we will compare the printout with the first one you got.

    A. How many occupations were in your list from the first time you went through the questionnaire? _____ How many occupations are in this list? _____ What is the difference in these two numbers? _____

    B. Compare the number of occupations after you typed in HOW MANY.

Question	1st printout	2nd printout	difference
5	_____	_____	_____
8	_____	_____	_____
12	_____	_____	_____
16	_____	_____	_____

You can see from the difference that the more diverse types of work situations you like and the greater amount of abilities you wish to use, the more occupations are going to be open to you. This is the end of the package. You have used almost every aspect of the terminal and know how to get any information that it has in it. It is up to YOU to keep using it!

TITLE: DO YOU WANT TO WORK WITH PEOPLE?

by Marilyn Olson Lane ESD Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: To allow junior & senior high school students to examine how working with people may or may not influence their job possibilities.

TIME: 1-2 class periods

MATERIALS & FACILITIES NEEDED:
CIS Needle-Sort
Worksheet (sample follows)

PROCEDURES:
1. Students may work individually or in small groups.
2. Have the students answer question #4 and #5 -- "Working With Others" and "Persuading and Selling" with "NOT". Have the students list the five most interesting jobs that fall out when they answer the question with "NOT".
3. Have the students explain how each of the five jobs involve working with people.
4. Have the students list five jobs that are left on the needle.
5. Of the five jobs, have the students explain whether the person in that type of job works mostly with things (machines) or information (data).
6. Of the ten jobs they have investigated, have the students choose one. Does that job involve working with people, data, or things?
7. A class discussion of the ways that various students feel about the issue of working with people might be interesting.

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NEEDLE-SORT/CAREER AWARENESS AND EXPLORATION Name_____

What happens when you answer "not" to questions 4 and 5?
List 5 of the most interesting jobs that fall out for holes 4 and 5.

a._____ c._____

b._____ d._____

e._____

Tell how each job listed above involves work with people:

a._____

b._____

c._____

d._____

e._____

List 5 interesting jobs still on your needle:

a._____ c._____

b._____ d._____

e._____

For each job just listed tell whether the person works mostly with <u>things</u> (machines) or information (data).

a. _____things _____data

b. _____things _____data

c. _____things _____data

d. _____things _____data

e. _____things _____data

Circle the job listed any place on this page that interests you most.
Do you think you prefer working with people_____, data_____, or things_____?

TITLE: PERSONAL CHARACTERISTICS & OCCUPATIONAL CHOICES (adapted from: WHAT SHALL I DO NOW?

by Dick Rumble Adams High School Portland, Oregon)
revised by Jeff Wiles CIS Eugene, Oregon

OBJECTIVE: To assist students in becoming aware of how differences in personal characteristics influence occupational choice.

TIME: Approximately 2 class periods

MATERIALS & FACILITIES NEEDED:

CIS Terminal or 4-5 Needle-Sort decks
CIS User's Handbooks
Personal histories (samples follow)
Occupational Outlook Handbook
Dictionary of Occupational Titles

PROCEDURES:

1. Divide the class into groups of 5-6 people.
2. Distribute to each class member a copy of Jack's personal history I (sample history I and II follow).
3. Ask each group to complete QUEST for Jack using the information provided. Groups will likely negotiate answer.
4. Each group should take a completed QUEST to the terminal or needle-sort deck and obtain a list of occupations for Jack.
5. Each group should select 2 or 3 occupations from the QUEST list which they think most appropriate for Jack. Students are encouraged to study the occupational descriptions and preparation statements as well as program and school information for the occupation.
6. The same groups should repeat steps 2-5 for Jack's personal history II.
7. After occupations have been selected for both Jack I and Jack II, the groups should compare the occupations and take note of any significant differences.
8. The instructor will lead a discussion concerning how Jack's personal characteristics influenced his occupational choice.
   a. How did Jack's family income effect his occupational choice?
   b. Did Jack's interest in school effect his job choice?
   c. What were the differences in Jack I and Jack II that resulted in different occupations?

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Personal History I

Jack is a nineteen year old senior. His grades are excellent and he excells in virtually all subjects. He is interested in the sciences with a special interest in mechanics. He has repeatedly scored in the highest percentiles of national mathematic tests. Jack is from a large family, however, his mother is a successful busines person and she can afford to send Jack to any school she wishes. Jack wants very badly to stay in Oregon and is also somewhat cautious about attending college. What should Jack do?

NOTE: Teachers are encouraged to change the facts of the personal history to fit the course's focus.

Personal History II

Jack is a nineteen year old senior. His grades are average, at best, and he has particular difficulty with english courses. He has a strong interest in mechanics and frequently spends his weekends working on old cars. Jack is from a large family, with only an average income, and he also has some concerns about the costs of his education. Many of his friends have gone to college and dropped out. This concerns Jack and he wonders if he should attend college. He likes Oregon very much and thinks he would like to live in a rural area. What should Jack do?

TITLE: WHAT TO BE -- THAT IS THE QUESTION

by Mike Wilson Ashland Junior High Ashland, Oregon
submitted by Vickie Gardner Hillsboro High School Hillsboro, Oregon

OBJECTIVE: To acquaint junior or senior high students or adults with a logical problem-solving technique, specifically related to career decisions.

TIME: One week or more depending upon the quantity of resource materials available.

MATERIALS & FACILITIES NEEDED:

Worksheets (samples on following pages)
CIS Needle-Sort deck & occupational information printouts or CIS Terminal
Dictionary of Occupational Titles
Occupational Outlook Handbook (other miscellaneous occupational
Job application forms information on hand)
Application forms for Social Security number

PROCEDURES:

1. The worksheets are distributed to the students (perhaps one at a time).
2. The teacher may wish to check the sheets as the students complete them.
3. The teacher will need to give introductory information before several of the worksheets are attempted by the students (e.g., data sheet, interview procedure, & Social Security number application).
4. Upon completion of the worksheets, the students may compile them into a notebook to be retained for future use.
5. The teacher should familiarize students with resources available to assist them in improving skills in interviewing, resume writing, understanding occupations, etc. (for a list of some additional resources see "Additional Resources" in the handbook).

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Name_____

TITLE:

Self Appraisal (A Beginning)
(This form may be used for re-appraisal also.)

INTRODUCTION:

Do you really know much about your job skills and knowledge, attitudes, and work habits? This activity will help you identify areas that need improvement.

OBJECTIVE:

Using the following form, you will perform a self appraisal and identify areas which are in need of improvement.

ACTIVITY:

Evaluate yourself as a worker by using the following checklist.* Place a check (X) mark in the block which most nearly describes your characteristics as a worker.

QUALITY OF WORK PRODUCED	Very poor	Poor	Slightly below standard	Acceptable quality	Very good	Exceptional quality
QUANTITY OF WORK PRODUCED	Very low	Low	Slightly under average	Slightly over average	Well over average	Extremely high
KNOWLEDGE OF JOB SKILLS	Almost none	Very limited	Somewhat lacking	Fairly good	Very good practically all phases	Exceptional knowledge all phases
ATTITUDE AND COOPERATION	Always in trouble	Frequently in trouble	Always holds back	Usually cooperates	Never holds back	Active cooperation
ATTENDANCE	Very irregular	Poor	Slightly under group average	Slightly over group average	Well over group average	Almost perfect
INITIATIVE	Very low	Requires constant supervision	Requires frequent supervision	Somewhat resourceful	Very resourceful	Extremely resourceful, self-reliant

REMARKS_____

_____

_____

Date_____ Rated by_____

*Checklist adapted from *Sourcebook of Personnel Forms*, Natl. Foremen's Institute, Inc.

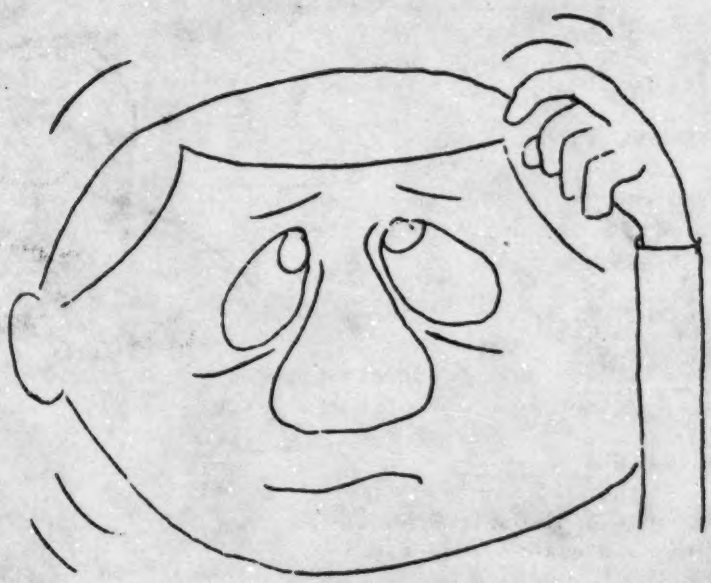
Name _____

TITLE:

Job Interests

INTRODUCTION:

You can begin to understand the world of work by identifying some occupational interest areas.



OBJECTIVE:

To list at least 3 occupational interest areas.

RESOURCES:

Needle-sort or Terminal
Dictionary of Occupational Titles

ACTIVITY:

List at least 3 occupational areas in which you have an interest.
(Example: Photography)

1. _____ OCC. # _____

2. _____ OCC. # _____

3. _____ OCC. # _____

Name _____

TITLE:

Job Duties

INTRODUCTION:

You can learn more about jobs by studying the duties performed by workers.

OBJECTIVE:

To list at least 5 duties performed by a worker in a job of your choice.

RESOURCES:

Occupational Outlook Handbook
CIS Occupational Descriptions
People in the job area
Dictionary of Occupational Titles

ACTIVITY:

1. Write the name of the job here: _____ OCC.# _____

2. List at least 5 duties performed by a worker in that job.

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

Name_____

TITLE:

Preparation Requirements

INTRODUCTION:

People have dreams of jobs in which they would like to work, but many times they fail to understand the training requirements necessary to perform that job. This activity will help you to understand the requirements for the job of your choice.

OBJECTIVE:

Using appropriate resources, list the specific training requirements for a job of your choice.

RESOURCES:

CIS PREP files
Dictionary of Occupational Titles
People in the job area
Occupational Outlook Handbook
Audio visuals

ACTIVITY:

Occupation Selected: _____ OCC.# _____

1. Age requirement

_____

2. Education or training requirement

_____

3. Special aptitudes

_____

4. Physical requirements

_____

5. Places where training may be obtained

_____

Name_____

TITLE:

Things You Like Most & Least

INTRODUCTION:

Your choice of a job should be, in part, based upon your interests. A worker interested in his job will have a better chance for success. Have you ever stopped to consider what you like to do best?

OBJECTIVE:

To write out those things you like the most and the least.

RESOURCE:

You!

ACTIVITY:

List those things which you liked the most and the least about the 3 jobs you selected.

1. Occupation Selected	Things liked most	Things liked least
Occ.#		
2. Occupation Selected		
Occ.#		
3. Occupation Selected		
Occ.#		

Name_____

Personal Data Sheet

ACTIVITY:

Write out a personal data sheet.

Paid or Volunteer Work Experience	Dates

Education and/or Training	Dates

Name_____

TITLE:

Job Application

INTRODUCTION:

Most frequently when a person interviews for a job, a job application blank is filled out. Your chances of getting a job are improved if the application is completed in a neat and accurate fashion.

OBJECTIVE:

To fill out a job application blank as neatly and clearly as possible.

DIRECTIONS:

Fill out the attached job application blank and hand it in to your instructor for evaluation.

Name_____

TITLE:

Preparing for a Job Interview

INTRODUCTION:

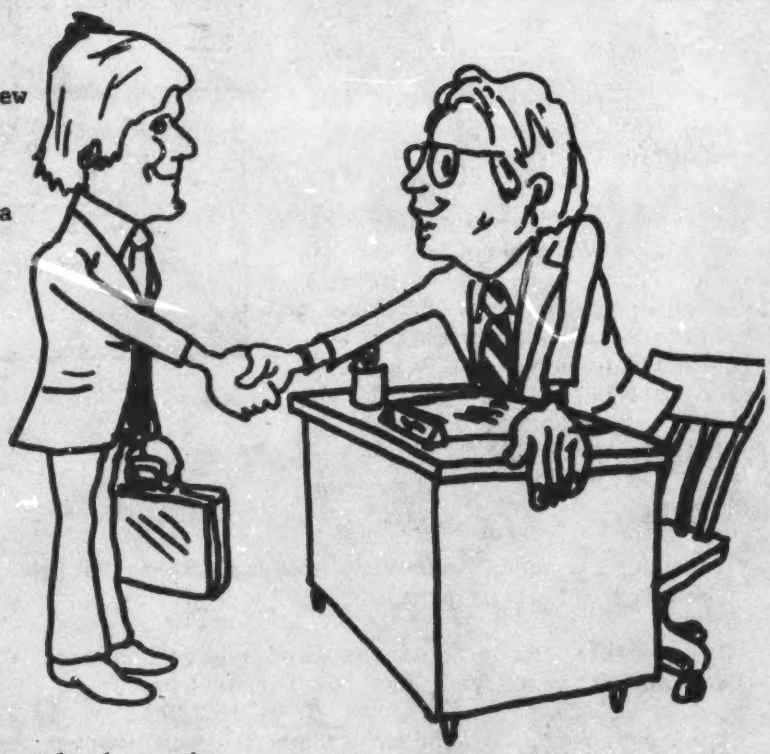
Before a person gets a job a personal interview is frequently necessary. A poor interview can mean no job; whereas, a good interview can mean getting a job.

OBJECTIVE:

To list the do's and don'ts for a job interview.

RESOURCE:

Interviews with parents, counselors, & employers.



EXAMPLE:

Do Arrive well groomed & neatly dressed
Arrive on time

Don't Be late for an interview
Be overconfident

ACTIVITY:

Write out the do's and don'ts of a job interview below.

Do's	Don'ts

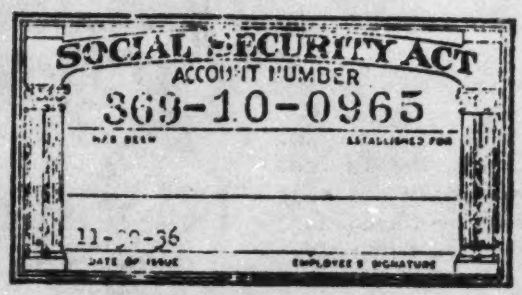
Name _____

TITLE:

Social Security Application

INTRODUCTION:

Government regulations require all workers to secure a social security account number. Before entering the workforce, you too will have to establish an account number. It will remain with you all your life. During this activity, you will get and fill out a social security application blank.



OBJECTIVE:

1. To secure 2 social security application forms from your local social security office or post office.

2. To complete the application form neatly and accurately, as directed, and submit it to your teacher for assessment.

3. Upon approval, to send this form to your nearest social security administration district office.

PRACTICE FORM:

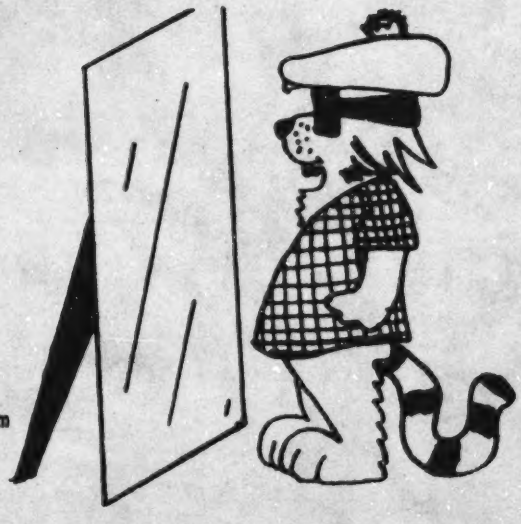
Use one form for practice before filling out the final form.

TITLE:

Self Appraisal (Follow-Up)

INTRODUCTION:

Earlier, you performed a self appraisal. By performing another self appraisal, you will be able to make some comparison. This activity will enable you to make these comparisons.



OBJECTIVE:

1. Using the following form, you will perform a self appraisal.
2. By looking at the original appraisal and the one just completed, you will make comparison of before/after.

Name _____

ACTIVITY:

Evaluate yourself as a worker by using the following checklist.* Place a check (X) mark in the block which most nearly describes your characteristics as a worker.

QUALITY OF WORK PRODUCED	Very poor	Poor	Slightly below standard	Acceptable quality	Very good	Exceptional quality
QUANTITY OF WORK PRODUCED	Very low	Low	Slightly under average	Slightly over average	Well over average	Extremely high
KNOWLEDGE OF JOB SKILLS	Almost none	Very limited	Somewhat lacking	Fairly good	Very good practically all phases	Exceptional knowledge all phases
ATTITUDE AND COOPERATION	Always in trouble	Frequently in trouble	Always holds back	Usually cooperates	Never holds back	Active cooperation
ATTENDANCE	Very irregular	Poor	Slightly under group average	Slightly over group average	Well over group average	Almost perfect
INITIATIVE	Very low	Requires constant supervision	Requires frequent supervision	Somewhat resourceful	Very resourceful	Extremely resourceful, self-reliant

REMARKS _____

_____

_____

Date _____ Rated by _____

*Checklist adapted from *Sourcebook of Personnel Forms*, Natl. Foreman's Institute, Inc.

TITLE: QUICK WITS

by Marilyn Olson Lane ESD Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: For students to investigate how general learning ability may influence the jobs which are available to them.

TIME: Enough time so each student may use the Needle-Sort 1 or 2 class periods

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort
CIS User's Handbooks

PROCEDURES:

1. Students may work individually or in small groups.
2. Have the students use the Needle-Sort to answer Question #14 - "Catching On To Things" with "low" (GLO-19).
3. Have each group or individual choose 10 interesting jobs that fall out when the question is answered in this way. Have them discuss why such a person would have to be able to catch on to things easily and be able to understand and comprehend instructions.
4. Next, have each group or individual list 5 jobs that interest them and remain on the needle. Have them explain what appeals to them about each job.
5. Have a class discussion with students explaining what they interpreted to be "an ability to catch on to things". A wide variety of responses will most likely ensue. This may be a good time to lead a class discussion concerning various aptitudes. Some possible discussion questions might include:
   a. How important is it to be able to "catch on to things"?
   b. How does training or experience in an occupation enable the worker to catch on to things?
   c. What experiences do class members have in common that indicate an ability to "catch on to things"?

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TITLE: EDUCATION & TRAINING: DO THEY DETERMINE YOUR JOB??

by Marilyn Olson Lane ESD Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon
revised by Jeff Wiles CIS Eugene, Oregon

OBJECTIVE: For junior and senior high school students to examine how education & training influence job choices.

TIME: Enough time to allow each student to use the needle-sort -- approximately 1-2 class periods

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort
Worksheet (sample on following page)
CIS User's Handbooks
Occupational Information Printout

PROCEDURES:

1. Discuss possible educational decisions open to students; include training programs as well as formal schooling. Some students will be informed about requirements for some jobs and others will be unaware of any.
2. Discuss requirements for the jobs in which students are interested. (The discussion leader should have some prior indication about the most popular occupations and be prepared accordingly. CIS staff would like to suggest that the teacher investigate CIS' STATPG for the most popular occupations. The DESC file for these occupations provide information about hiring practices. The PREP file for whichever occupations are selected will provide additional information about licensing requirements and tips for entering a specific occupation.)
3. Divide the class into groups of approximately 5 students and distribute 1 needle-sort deck to each group.
4. Using the needle-sort deck, students will answer Question 17 in the User's Handbook - "Education and Training" with "4 year college degree or equivalent." Have the students list 3 interesting occupations that fall off the needle.
5. Students should then answer the Question with "up to 2 or 3 years of special training." Have the students list 5 interesting jobs that fall off the needle when the question is answered in this way.
6. Students answer Question 17 with "high school graduation or G.E.D. and a short training period." Have them list 5 interesting jobs that fall off the needle when they answer the question in this manner.
7. Students answer Question 17 with "no special education or training before starting the job." List 5 interesting jobs that fall off the needle.
8. Students should list 3 interesting jobs that remain on their needle.
9. Of the jobs they have listed, have the students choose 1 job that interests them most.
10. Have them write down how much education and training it requires.
11. Class discussion may ensue or individual counseling may be in order.

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NEEDLE-SORT/CAREER AWARENESS and EXPLORATION Name_____

EDUCATION AND TRAINING

1. List 3 interesting jobs that fall off the needle when you limit yourself to 4 years of college or special training: (FOUR-24)

   a._____ b._____ c._____

2. List 5 interesting jobs that fall off the needle when you limit yourself to 2 years of training: (TWO-23)

   a._____ c._____

   b._____ d._____

   e._____

3. List 5 interesting jobs that fall off the needle when you limit yourself to high school graduation: (HS-21)

   a._____ c._____

   b._____ d._____

   e._____

4. List 5 interesting jobs that fall from the needle when you limit yourself to no training:

   a._____ c._____

   b._____ d._____

   e._____

5. List 3 interesting jobs that remain on your needle.

   a._____ b._____ c._____

6. Circle the job listed anywhere on this page that interests you most.

7. How much education does it require?

TITLE: LIFE-LINE TO YOUR CAREER
by Leslie Haines CIS Eugene, Oregon

OBJECTIVE: 1) To help students identify their past work experiences and then think of them in terms of their preferred lifestyle and values; 2) to facilitate appreciation for people's differing experiences, values, lifestyles; and 3) to encourage students to make specific plans about work based on their understanding of their personal values.

TIME: 2 class periods (one week apart to allow time for gathering CIS information)

MATERIALS & FACILITIES NEEDED:
Large newsprint tablet
Felt tip pens of varying colors
Masking tape
(CIS computer terminal and User's Handbooks)

PROCEDURES:
This activity may be used at the high school or community college levels.
Before the first session --
1. Before beginning students on this activity, the leader should read the accompanying preparation notes about values clarification.
2. In a career-oriented class or workshop, each student will be helped to construct his or her own life-line using a sheet of newsprint and a felt tip pen.
First session --
1. Spend some time (about 15 minutes) talking about values and have the class list a few (e.g., independence, security, comfort, service, adventure, etc.). You should find the Group Leader Preparation Notes helpful in leading this discussion. Have students consider the values you all talk about as they begin to prepare their life-lines.
2. Explain to the students that they will draw a graphic representation indicating all of the kinds of work or jobs they have held in the past, their work activities in the present and their future plans. Above and below the line they can indicate their positive and negative feelings about moments in their work experiences (see the sample life-line at the end of this exercise for ideas).
3. Tell students to be as creative as they wish with the format of the life-line (you may wish to provide magazines and ask students to illustrate their experiences with pictures or they may wish to use other creative formats). In drawing the life-line, however, students should indicate a specific beginning and ending date (you may specify that students begin 10 years earlier in their life and end the life-line 10 years in the future or you may choose specific beginning and ending dates depending on the age of the group). Having students draw their life-lines into the future encourages them to think in terms of where and why they will be working later in life.
4. At the end of class allow about 10 minutes to explain the activity to be completed before the class meets again to work on this exercise (about 1 week later). In the week between classes, ask students to use the Career Information System to gather some occupational information. (You will have to have made prior

(continued)

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arrangements for your class to use the computer terminal and CIS during the week.) CIS will provide the students with information about specific occupations they may be thinking of as a result of working with their life-line or may answer questions students may have about further education or preparation. If students are only beginning to think about their future careers, they can be encouraged to use CIS' QUEST and come back to class with a list of occupations that interest them and a few occupational descriptions. Ask students to bring to class next time their CIS computer printouts (at least 1 or 2 occupational descriptions) and their life-lines for class discussion.

Second session --

1. After students have prepared their life-lines and have explored CIS to obtain some occupational information that interests them, have each individual spend about 10 minutes looking over his or her life-line and write at the bottom some of the values the person regards as important or values that seem to be evident from past experience.
2. Then break the class up into small groups (3 or 4 people) and have the groups discuss how personal values relate to plans for future work. If they care to, individuals may explain the values they listed on their life-line and why these values are important to them. Group members may wish to suggest some possible careers that could relate to the individual's values.

NOTE: A couple of examples of how two students' life-lines turned out are provided on subsequent pages. Also included is a Group Leader's Preparation Sheet for background information on presenting values clarification information.

GROUP LEADER'S PREPARATION SHEET

The group's leader may want to begin the life-line activity by discussing briefly what values are: for example, "values are the things that are important to us. The lifestyle we choose is directly related to our values. Values relate to those things we must do to feel good about ourselves."

In making career decisions it is important that people begin to get a clearer idea of what their values and preferred lifestyle may be. For instance, a student may begin to ask, how do I relate to things -- as a leader, as a creator? Do I prize physical comfort or adventure? Do I enjoy a structured environment or do I prefer to innovate? How important is economic security to me? Do I like to work independently of other people or on a team? Do I like to be in charge of others or do I like to be supervised? Do I want to work with ideas and concepts or would I rather not be involved in these activities?

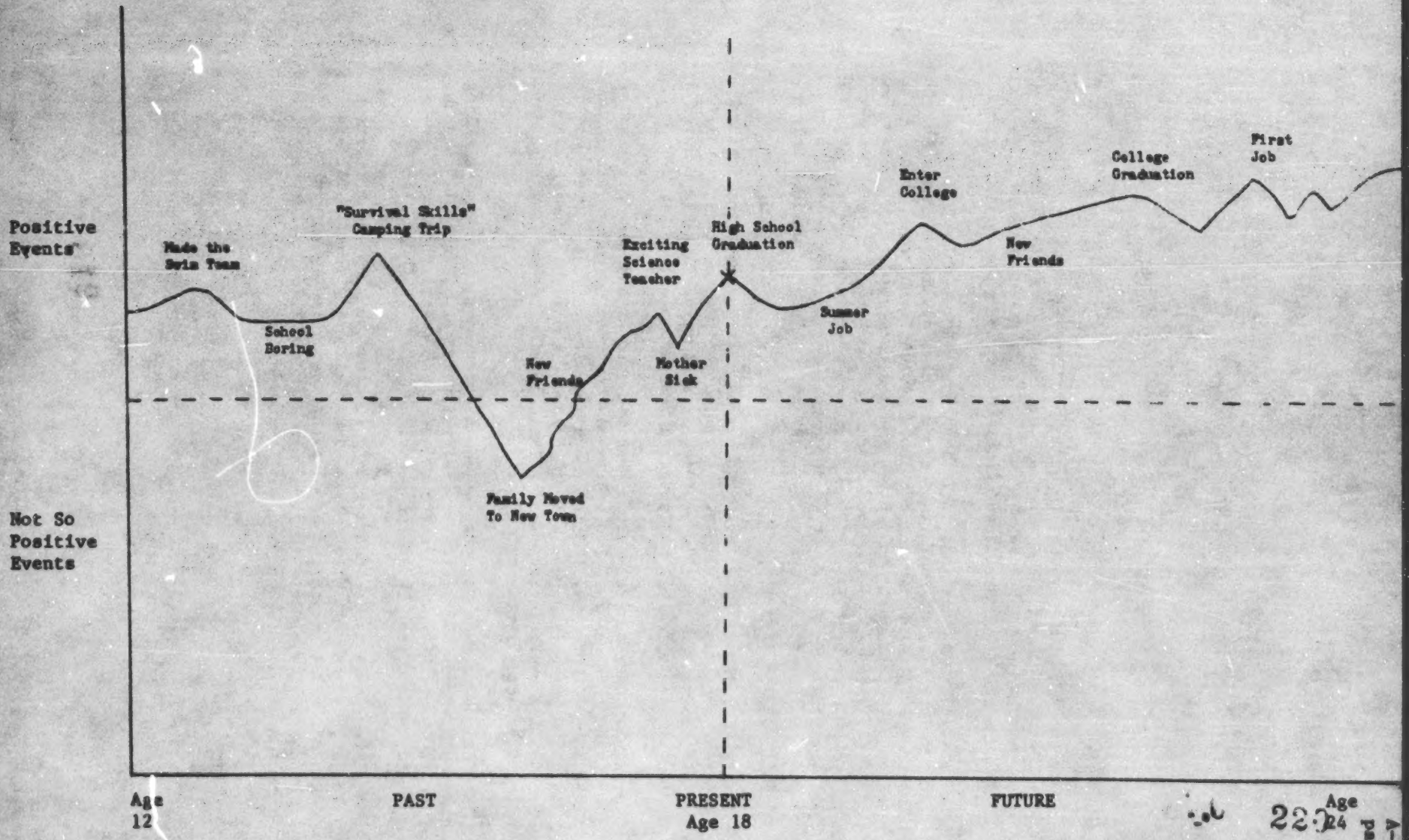
Values vary widely from person to person. It is important that the facilitator be accepting of values that may be the same or that may differ widely within the group. In this way one can avoid giving the impression that some values are "right" and some are "wrong".

Usually we have several values that motivate us and some of these are more important than others. Two people may have very similar values and yet rank them differently. During the discussion of values, the facilitator may gather from the group a list of possible values one might identify. Such a list might include words like: service, comfort, independence, security, activity, sacrifice, etc.

The choices we make and the actions we take most often are revealing of our personal values. The life-line activity is not a "tell all" session. Participants should be encouraged to choose those events they would be willing to talk about and share with the group.

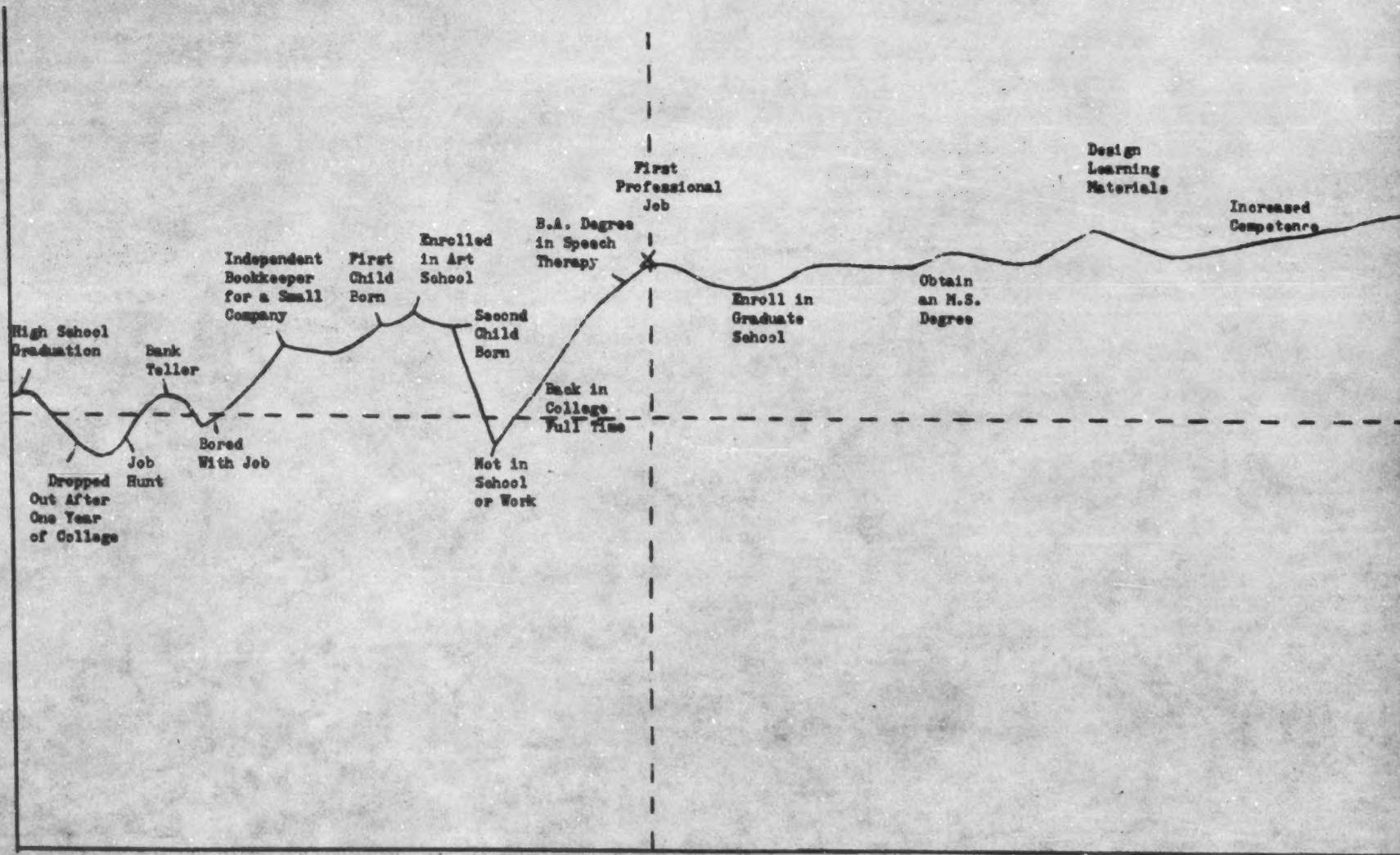
The life-line exercise enables most students to talk about their values readily, and to help other class members identify what it was about a certain activity or period of time that satisfied them. Inherent in the exercise is the opportunity to project freely into the future, discussing future work expectations and what that event will mean in the life of the individual.

Life-Line by Travis (Age 18)



Some Values that Travis Seems to Hold:
Physical activity; importance of family & friends; security; achievement

Life-Line by Margaret (Age 34)



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Some Values that Margaret Seems to Hold:
Achievement; independence; being of service

A-10
page 3

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TITLE: NOW HEAR THIS!

by Leslie Haines CIS Eugene, Oregon
revised by Jeff Wiles CIS Eugene, Oregon

OBJECTIVE: To acquaint students with the kinds of questions typically asked in a job interview and to provide them an opportunity to practice interviewing skills.

TIME: 1 or 2 class periods or longer, depending on the size of the group

MATERIALS & FACILITIES NEEDED:

"Now Hear This!" worksheets for each student
CIS User's Handbooks (either computer or Needle-Sort version) for each student
CIS Terminal or CIS Needle-Sort (deck and occupational information printout)

PROCEDURES:

1. Have students either fill out the QUEST material in the CIS User's Handbook or simply peruse the occupations listed in the Handbook to identify occupations that interest them. (If QUEST is used, allow additional time for students to get a list of occupations — either with the computer or the needle-sort. Have students choose a particular job to relate their interview material to during this exercise. The CIS information should give them the material they need to find out some useful things about the job for which they are applying.
2. Each student then is given a worksheet for this activity (see accompanying page) and is given time to review it, writing down answers to questions she or he is unsure of. Students should prepare their answers considering the job for which they are planning to "mock interview".
3. In a subsequent class, ideas and information can be shared among group members about appropriate responses to questions.

NOTE: Some interesting variations to this activity includes:

A. Students should divide into groups of 3. One student should serve as employer, one as the interviewee (i.e., job applicant) and one as passive observer. Students should conduct a "mock interview" with the employer and interviewee role-playing their respective positions. The student serving as passive observer should take careful notes and provide a brief critique at the end of the interview. Interviews should be limited to 10-15 minutes. Students should rotate until each student has role-played the position of interviewee.
B. Using the worksheet entitled "You! Performing Live!", the instructor leads a group discussion on the "dos" and "don'ts" of a job interview.
C. The students and instructor study and discuss the attached worksheet. In front of the class the instructor role-plays the position of employer while a student assumes the role of interviewee. Preferably with the assistance of video-tape equipment, the class and instructor critique the job interview. The second role-play exercise should have the instructor serving as the interviewer while a student serves as the employer.

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Now Hear This!

Frank Endicott surveyed 92 companies and found that the following questions were the ones most often asked in employment interviews.*

1. What are your special abilities?
2. What jobs have you enjoyed the most?
3. What extracurricular activities have you been involved in?
4. What have you learned from some of the jobs you've held?
5. How do you spend your spare time?
6. Do you prefer working with others or yourself?
7. What courses did you like best in school? Least? Why?
8. Why did you choose this particular field of work?
9. What do you know about our company?
10. What qualifications do you have that make you feel you will be a success in your field?
11. Do you feel you received good general training?
12. What type of position are you interested in?
13. What school activities have you participated in? Why? Which did you enjoy most?
14. What are your future vocational plans?
15. How much money do you hope to be earning five years from now?
16. Have you ever been involved in teaching someone something?
17. Do you do volunteer work now in the community?
18. Do you have plans for further training?
19. What job in our firm do you want to work toward?
20. Have you had any serious illness or injury?
21. Are you willing to go where the company sends you?
22. What are your special abilities?
23. Have you ever changed your major field of study while you were in college? Why?
24. What have you done that shows initiative and willingness to work?
25. What do you think would determine your progress in our company?

*Interview questions taken from "Making the Most of your Job Interview," a brochure produced by the New York Life Insurance Company.

There are probably some, maybe most, questions that you already know how you would answer during an interview. If there are some that you are not sure about how you would respond, take some time to write down what you think you would say if you were asked those questions. Discuss in class possible answers to problem questions that will show you in a good light to a potential employer.

NOW HEAR THIS!
Worksheet #2

Do's and Don'ts of Job Interviewing

DO	DON'T
+ Dress conservatively and appropriately for the job setting.	- Arrive late for your interview appointment.
+ Be neatly groomed.	- Chew gum or smoke during the interview.
+ Smile and be friendly.	- Slouch in your chair.
+ Know the exact interview time and place.	- Avoid looking at the interviewer.
+ Have a copy of whatever written material you sent in (your resume, letters of recommendation, application form).	- Mumble when you answer a question.
+ Look your interviewer in the eye.	- Fidget with your hands, tap your feet.
+ Speak up clearly.	- Use brief "yes" or "no" responses when you could say more.
+ Be sure you understand a question before you answer it.	- Rush through your answers to questions.
+ Be sure to give enough relevant information when answering a question.	- Overpower the interviewer with too much information about yourself.
+ Ask when decisions will be made and how you will learn of the decision.	- Forget to offer your hand to greet a male interviewer. (If you have a female interviewer wait for her to extend her hand.)
+ Prepare questions you might want to ask the interviewer.	
+ Thank your interviewer.	

TITLE: SELLING, PERSUADING AND YOUR FUTURE JOB

by Marilyn Olson Lane ESD Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: To inform students on how selling and persuading affect their job possibilities.

TIME: 1 class period

MATERIALS & FACILITIES NEEDED:
CIS Needle-Sort
CIS User's Handbooks

PROCEDURES:
1. Students may work individually or in small groups.
2. Have the students use the Needle-Sort to answer question 5 - "Selling, Persuading" with ("NO" - 5).
3. Have each group or individual choose 5 interesting jobs that fall out and are eliminated when the question is answered in this way.
4. Have the students discuss reasons why they think that selling and persuading are important abilities in each of the occupations.
5. Then have each group or individual choose 5 interesting jobs that have remained on the needle. Have them explain what appeals to them about these jobs.
6. The class then may discuss the way selling and persuading relates to careers (e.g., selling oneself during interviews).

NOTE: This technique may be used with any "nature of work" question (questions 1-8).

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TITLE: CAREER SEARCH (adapted from activity titled USE OF CIS AT $(CE)_2$)

by Dick Sagara $(CE)_2$ Tigard, Oregon
by Carole Ishimaru Colorado CIS Boulder, Colorado

OBJECTIVE: To provide students with a systematic approach to career exploration and the opportunity of interviewing with prospective employers or resource people.

TIME: Continuous activity (possibly for one semester) depending on availability of employers or resource people for interviews.

MATERIALS & FACILITIES NEEDED:

CIS Exploration Handbook
CIS terminal and/or Needle-Sort
Copy of attached worksheet

PROCEDURES:

1. Have students complete QUEST and obtain appropriate occupational list at the beginning of the semester.
   a. Choose at least two occupations to examine closely; obtain the description, preparation, program, and bibliographical information on these occupations.
   b. Become familiar with information on these printouts.
2. Distribute worksheets to students to follow and to complete.
   a. Students should be thoroughly prepared before interviewing in order to avoid embarrassment. Students who are conducting information interviews will want to study Questions For a Occupational Visit, which are attached.
   b. Role playing may be used to simulate an interview.
3. Collect completed worksheets as they are finished.

NOTE: Interview experience may be for the purpose of trying to obtain an actual job and/or to explore possible future employment. This purpose should be determined prior to the interviews.

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Printout Check Sheet

Directions: This check sheet is designed to direct the use of the printout(s) you receive as you use CIS. Please check off the categories as they are completed.

____ Become familiar with the information on your printout(s)

____ Share printout(s) with your parents/guardians

____ List names of employer(s) and resource people related to the occupation on your printout(s) and their location (refer to Chamber of Commerce publications, Directory of Oregon Manufacturers, Yellow Pages, newspaper want-ads for leads):

_____

_____

_____

_____

_____

_____

_____

____ Continue your occupational investigation by arranging for interviews with at least two of the people listed above: prepare for these interviews by becoming familiar with information available regarding "Job Search Skills" and by studying Questions for an Occupational Visit, which are attached.

- Purpose of interview: _____ seek immediate employment*
  _____ general information
  _____ other (specify):

- Comment on your interviews in this space provided:

*People in the CIS VISIT File have not volunteered to interview people for employment purposes. Please do not abuse this resource.

Questions for an Occupational Visit

You may want to visit someone and talk about a particular line of work. You may also be able to see where the person works. Most people like to talk about their work, so you do not need to be nervous about contacting someone.

Before you go for the visit, you should become generally familiar with the occupation. The OCCUPATIONAL DESCRIPTION or other material will help you.

THE FOLLOWING ARE SOME QUESTIONS WHICH ARE OFTEN USED IN OCCUPATIONAL INTERVIEWS:

1. What is your job like?
   A typical day: What do you do?
   What kinds of problems do you deal with?
   What kinds of decisions do you make?

2. What are the most important personal satisfactions and dissatisfactions connected with your occupation?

3. What social obligations go along with a job in your occupation?
   Are there organizations you are expected to join?
   Are there other things you are expected to do outside of work hours?

4. What things did you do before you entered this occupation?
   Which have been most helpful?
   What other jobs can you get with the same background?

5. What sorts of changes are occurring in your occupation?

6. How does a person progress in your field?
   What is the best way to enter this occupation?
   What are the advancement opportunities?
   What are the major qualifications for success in this particular occupation?

SOME CAUTIONS:

There are other resources for personal counseling and guidance so you should not expect this person to help with your personal problems.

If you decide to follow this occupation you should remember that every job, even in the same field, is slightly different.

This is not a referral to a job opening, so do not expect to be offered a job.

TITLE: Planning Your Post High School Education
by Dick Rumble Adams High School Portland, Oregon

OBJECTIVE: Students identify tentative post high school educational plans and match them with specific postsecondary school programs offered in the state.

TIME: Enough time so each student may use a variety of CIS information files. 1 or 2 class periods.

MATERIALS & FACILITIES NEEDED:

CIS terminal or manual Needle-Sort and CIS printouts for occupational, program and school information.
A worksheet for students listing some of the questions suggested below (optional).
Any additional resource information about schools and training that you have available to you at your school.

PROCEDURES:

A teacher or guidance counselor may work with individuals and small groups facilitating student identification of postsecondary educational plans.

As preliminary plans are identified, instruction on the use of the Career Information System (either computer terminal or manual Needle-Sort*) should be given. QUEST may be taken or retaken, but PREP, PROG and SCH files will be particularly useful for this exercise.

Students should try to answer the following questions about their plans by using the CIS information files:

1. Is there more than one kind of program available that will meet my needs? What are the advantages of each?
2. Where could I take the program that interests me?
3. How long will it take?
4. What are the costs?
5. What kinds of financial aid are offered by the school?
6. What should I do <u>now</u> to become better prepared?

(Additional resources, such as the Oregon State System Fact Sheet, <u>It's Your Decision</u>, financial aide application forms, SAT and ACT application information, etc., may be provided.)

Very important to the value of the activity is an opportunity to discuss the results with a counselor or a teacher acting in support of the exercise.

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*Using the computer terminal facilitates students' ability to compare up to three school at once on any information topic the student selects.

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LANGUAGE ARTS

The following collection of CIS* learning activities has been provided to assist teachers and counselors in helping students and clients with their career information and decision-making needs.

This Language Arts section stresses communicative skills, both written and spoken. It encompasses critical thought, information gathering, reading, writing, and vocabulary skills.

LEARNING ACTIVITIES

B-1 Panel of Experts
B-2 To Tell the Truth
B-3 Vocabulary and the World of Work
B-4 Password to Careers
B-5 Writing a Skill-Related Resume
B-6 Dear Diary
B-7 Research Paper
B-8 Is It All It's Cracked Up To Be???
B-9 Pre-Work Observation Activity

Career Information System

Office of the Director
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403
(503) 686-3872

*CIS is presently being used in nearly 400 schools, colleges, and social agency settings in Oregon where career planning is on-going.

TITLE: PANEL OF EXPERTS
by Phil Palmer Highland Park Intermediate School Beaverton, Oregon
variation and sample questions taken from "Stump the Students"
by Phil Palmer Highland Park Intermediate School Beaverton, Oregon

OBJECTIVE: To help students to become aware of information that is available in the CIS files and to be able to access this information.

TIME: 1 class period

MATERIALS & FACILITIES NEEDED:
CIS Terminal or CIS Occupational Information Printouts
CIS User's Handbooks (1 for each student)

PROCEDURES:
1. Students are given User's Handbooks.
2. Five students are selected to be the panel.
3. Any student may question any panel member. Sample questions can be found on the attached work sheet.
4. The questioned panel member must answer if the question can be answered by CIS. The answer would be the file and occupational number or the reply that it is unanswerable.
5. The answer is retrieved from the terminal or occupational description printouts and supplied to the student asking the question.
6. The answer may be contested.
7. If the panel member is correct, he scores 100 points. If he is incorrect, he is replaced by the questioner.
8. Several questions can be processed at one time.
9. Individual scores are totaled at the end of the time period.

NOTE: A useful variation of this activity is to have the instructor ask the class the questions on the work sheet. Students are to respond with the code word and number needed to access the information which will answer the question. The class then checks the answer by entering the code number in the terminal. If the code number accesses the right information then the student receives 100 points.

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Sample Questions for Panel of Experts

1. What is the in-district resident tuition at Mt. Hood Community College?
2. What high school courses should you take if you are interested in social service occupations?
3. Where could I get training to become a millwright?
4. Is there an Explorer Post in this community for fire fighters?
5. What is the starting salary for nurses in this county?
6. What work duties are involved during a day on the job as an operating engineer?
7. What books could I read to find more information about Pilots and Flight Engineers?
8. What skills do I need to become a diesel mechanic?
9. Could I study music at Lane Community College?
10. What are room and board costs at a dorm at Southern Oregon State College?
11. What is the per hour salary of a journeyman Plasterer?
12. What duties must a Sawmill Chain Offbearer perform?
13. What are the employment prospects of a Freelance Writer?
14. What high school courses should you take to be a Dental Hygienist?
15. Who sponsors a career exploration group for Police Training?
16. What high school courses are needed to prepare for an Auto Mechanic?
17. What is the work setting for Child Care Workers?
18. How much money does a Community College Teacher earn in a year?
19. What is the best way to prepare to become a Musician?
20. How long is the apprenticeship to become a Meat Cutter?
21. What schools have a program in Art?
22. What courses would be helpful in preparing for a career as a Flight Attendant?
23. Does Oregon State have a program related to Meteorology?
24. What g.p.a. is required for admission to the University of Oregon?
25. How many schools in Oregon offer modeling courses?

TITLE: TO TELL THE TRUTH

by Tom Stennick Lent School Portland, Oregon
submitted by Sandie Ferrell Glenhaven School Portland, Oregon

OBJECTIVE: Given a game situation, students will attempt to tell which student in a panel is telling the truth about a particular occupation.

TIME: 1-2 class periods

MATERIALS & FACILITIES NEEDED:

Occupational Information Printouts
Occupational Outlook Handbook
Copies of suggested questions for the panels (sample on following page)

PROCEDURES:

1. Divide the class into groups of 3-4.
2. Each group selects an occupation and researches it for all possible information.
3. The groups each write an affidavit to be read to the class.
4. The class questions each group or panel, one at a time. Rules are according to television's "To Tell The Truth". One student, when questioned will give factual information, the other panel members will give less factual information.
5. At the end of a given amount of questioning, class members vote for the panelist they feel was telling the truth, votes are tallied and the panel member having given factual information will identify him/herself. Discussion concerning the career and the questions/answers will follow.

NOTE: Sample questions on following page.

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Suggested Questions for the Panel

a. How much money do people in this particular occupation earn?

b. Is the work done inside or outdoors?

c. What specialties are included within this occupation?

d. Does a person need a college education to do this work?

e. Does a person need a technical education to do this work?

f. Does a person need a high school education to do this work?

g. Are there many opportunities for employment in this occupation?

h. Are there many opportunities for advancement in this occupation?

TITLE: VOCABULARY AND THE WORLD OF WORK

by Marilyn Olson Lane ESD Eugene, Oregon
submitted by Dick Sagara (CE)$_2$ Tigard, Oregon
revised by Naomi Stewart CIS Eugene, Oregon

OBJECTIVE: To inform students of the importance of a good command of language to performing in the work world.

TIME: Enough time so each student may use the Needle-Sort (1 or 2 class periods).

MATERIALS & FACILITIES NEEDED:
CIS Needle-Sort (deck and occupational information printouts)
CIS User's Handbooks (enough for each class member)

PROCEDURES:
1. Students may work individually or in small groups.
2. Have the students use the Needle-Sort to answer Question #12 - "Use of Words" with "low" (VLO-15). (Occupations that drop off the needle and are eliminated are those that require average or better — "medium" or "high" -- use of words, i.e., verbal aptitude in the middle or upper third of the population.)
3. Have each group or individual choose five interesting jobs that fall out and are eliminated when the question is answered in this way.
4. Have the students discuss reasons why they think that use of words is an important factor for each of the occupations.*
5. Then have each group or individual choose five interesting jobs that remain on the needle and discuss reasons why they think that use of words is not an important factor for each of the occupations.*
6. The class then may discuss how verbal ability relates to a variety of careers.

*The CIS occupational information printouts can be a useful resource when discussing aspects of job duties and the abilities required.

NOTE: This technique may be used with any of the abilities questions (questions 9-15 in the CIS User's Handbook).

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TITLE: PASSWORD TO CAREERS (adapted from television game show Password)

by Carole Ishimaru — Colorado CIS — Boulder, Colorado
revised by Naomi Stewart — CIS — Eugene, Oregon

OBJECTIVE: To acquaint students with CIS system and to provide students with opportunities to develop vocabulary building skills (pronunciation, comprehension, synonyms).

TIME: 1 week of consecutive class periods or once a week at a designated time until the game is completed.

MATERIALS & FACILITIES NEEDED:

- CIS User's Handbooks
- CIS Occupational, Program and School printouts
- dictionaries
- 3 x 5" index cards - 20 per team
- container for index cards (shoebox)
- stopwatch available during game
- Paper clips - 10 per team
- facility for scorekeeping (blackboard, flashcards, anything to keep track of points scored)

PROCEDURES:

1. Divide class into teams of pairs.
2. Have each pair submit 10 words from the User's Handbook (commands, occupation names, etc.); each word is to be legibly written on two index cards with the pronunciation, definition and sentence within which is contained the designated word; it is important that the two index cards of the word contain identical information; have each set of words clipped together--these words become the passwords of the game.
3. Collect these sets of words; if this is being used as a Language Arts activity, cards should be checked for definition and usage; place cards in container.
4. Phyaical arrangements: arrange one table with two chairs on either side of a podium in the front of the room.
5. Game roles: one moderator (student or teacher) to validate/invalidate clues, keep track of turns and points; one timer with stopwatch to make sure that 10 second time limits are kept; one sender and one receiver of clues within each team (these roles alternate with each new password).
6. Game objective: to be the first team to attain 25 points by having the designated receiver say the password with the least number of clues.
7. Game procedures:
   a. Select two teams to begin the game and have them seated in the front of the room on either side of the moderator.
   b. The moderator draws a pair of words (kept in the container) and gives one card to each of the designated senders; the sender on the moderator's right is responsible for giving the first clue (these clues may neither contain nor be contained within the password); each sender has 10 seconds to give a clue and the receivers have 10 seconds within which to give their response.

 (continued)

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c. If the receiver says the password on the first clue, that pair receives 10 points; if the wrong word is said, it is the other pair's turn to give a clue and response; if the password is said on this second clue, its point value is 9--this pattern of alternating turns continues until the password is said or until the point value decreases to "0"; when this occurs, a new set of words is drawn by the moderator and the pair with the least number of points is responsible for giving the first clue.
d. Game continues until one team attains 25 points. When this occurs the game continues with another two teams and/or "Lightning Round".

(The original television Password game had a "Lightning Round" during which the winning pair had the opportunity to gain an additional 25 points. This was achieved by giving the designated sender in the pair 30 seconds in which to have its receiver say five new passwords with appropriate clues. This "Lightning Round" concept can be adapted to this classroom adaptation of this game.)

e. After all teams have had an opportunity to play, conduct playoffs with two categories: winning teams and losing teams (this maintains minimal drop-off attentiveness rates in the teams that lose).
f. New words may need to be written throughout the game. With game experience students become more selective with words and improve their writing of definitions and sentences.

TITLE: WRITING A SKILL-RELATED RESUME

by Violet Cooper Linn-Benton Community College Albany, Oregon
submitted by Mike Neill CIS Eugene, Oregon

OBJECTIVE: To acquaint the student with the skills required for an occupation and to have the student state the extent to which he or she posesses these skills.

TIME: 2-3 class periods

MATERIALS & FACILITIES NEEDED:
CIS Terminal or CIS Occupational Information Printouts

PROCEDURES:
1. Each student should choose an occupation in the CIS file.
2. From the occupational description have the student list all of the verbs and/or verb phrases that serve to describe what a person does in that occupation. For example, architects design construction, monitor construction, provide cost information, prepare sketches, etc.
3. For each verb selected, the student will write a paragraph on his or her ability to perform those tasks. For example, I have skill in drafting and artistic ability, enabling me to produce sketches which are technically correct and aesthetically pleasing.
4. Have the student write a resume or a statement to go with a job application in which the student includes the paragraphs on his or her skills.

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TITLE: DEAR DIARY

By Sande Ferrell — Glenhaven School — Portland, Oregon
revised by Jeff Wiles — CIS — Eugene, Oregon

OBJECTIVE: Students will become aware of the daily decisions and working day of people in specific jobs.

TIME: 2-3 class periods

MATERIALS & FACILITIES NEEDED:

CIS Occupational Information Printouts or CIS Terminal
Occupational Outlook Handbook
Oregon Directory of Manufacturers
Phone Book
Chamber of Commerce "Local Farms" Publication (optional)
Directory of Local Employers (optional)

PROCEDURES:

1. One class period is spent explaining the following steps in the activity:
   a. Using CIS occupational descriptions, the student is to select one to read.
   b. The student then writes an entry in a diary or a letter home, telling about one day or week on the job.
   c. The students must incorporate, in the writing, the information from resources, as well as describe how they personally visualize the job.
2. By utilizing the CIS VISIT File, Oregon Directory of Manufacturers, Yellow Pages, Chamber of Commerce Publications, or any directory of local employers, the student will contact one person who is working in the occupation they have selected (the employer does not have to be with a local firm). The student will correspond with this person to share with them their perception of a "day in the life" of a worker in the selected occupation.
3. The instructor will lead a discussion regarding how the students' perceptions differed from that of the employer. Special note should be taken regarding why there are differing perceptions.

NOTE: The instructor may want to solicit the cooperation of a large firm or agency that will coordinate contact between the student and employer. The Chamber of Commerce, Rotary Club, Kiwanis, and other service organizations may also be useful contacts for this and/or similar projects.

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TITLE: RESEARCH PAPER

by Dick Rumble Adams High School Portland, Oregon
sumbitted by Phil Palmer Highland Park Intermediate School Beaverton, Oregon
revised by Naomi Stewart CIS Eugene, Oregon

OBJECTIVE: For junior and senior high and community college students to become familiar with CIS, complete an occupational research paper and have a printout of information related to one occupation.

TIME: The students will work on an individualized basis. The time allotment will need to be flexible.

MATERIALS & FACILITIES NEEDED:

CIS Terminal or CIS Printouts
CIS User's Handbooks
Telephone or City Directory
Copies of research paper outline (see following pages)

PROCEDURES:

1. Ask each student to identify one subject matter area of specific interest to them and in which they have demonstrated ability.
2. Encourage the individual to do some further research on occupations related to his or her area of interest.
3. Student or teacher can obtain a list of occupations related to the student's area of interest by reading the appropriate PROGRAM file statement, reviewing the alphabetical list of occupations in the CIS User's Handbook or using the High School subjects listed in the Cluster PREP statements.
4. Ask the student to research one of the occupations.
5. Provide the student with:
   a. CIS User's Handbook
   b. the outline called Occupational Research Paper (sample following)
6. Student should complete a research paper using the outline and materials made available.
7. Before students begin, explain the instructions for using CIS and provide an overview of what kinds of information are found in specific files. The list of sources on the following page should serve as a guide.

NOTE: If students already have specific occupations in mind, steps 1-3 could be omitted.

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CIS Sources for Research Paper

Cluster: Check the first two digits of the four-digit occupation number.

Duties: from DESCRIPTION file

Skills: from PREPARATION file

High School Courses: from PREP file for the cluster (PREP and first two digits of occupation number)

Schools: from PROGRAM file

Aptitudes: from DESC file

Demand: from DESC file

Hours: from DESC file

Hazards: from DESC file, if known

Organizations: from DESC file, if required

Firms: get leads from statements about major types of employers in DESC file

Additional sources could include the Occupational Outlook Handbook, the Dictionary of Occupational Titles and various brochures. In some areas, the research could be supplemented by a personal visit. Contact people are listed in the VISIT file.

Occupational Research Paper

Name_____

Date_____

Complete the blanks or underline either Yes or No. Use additional pages if necessary.

Cluster the Occupation is found in_____

_____

Name of the particular occupation_____

_____

Duties of the Job (List minimum of five duties.)

1._____
2._____
3._____
4._____
5._____
6._____
7._____

Skills needed for the Job (Typing, Cooking, Writing, etc.)

1._____
2._____
3._____
4._____
5._____

What courses in high school would help to prepare you for this Job?

_____ _____
_____ _____
_____ _____
_____ _____

What schools offer training for this Job?

1.
2.
3.

Aptitudes needed for the Job (List minimum of five.)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Demand for workers in this Job

Are additional workers needed now in this occupation? Yes or No

Will still more workers be needed in the future? Yes or No

Do you consider chances for employment in this field bright, dead end, or non-existent?

(Underline the one which applies and describe briefly.)

Earnings

Beginning wage (Indicate per hour, per week, or per year)

Other Benefits

1. _____
2. _____
3. _____

Hours of Work

How many hours on the <u>average</u> would one work in this job?

1. Daily_____

2. Weekly_____

Are there seasonal lay offs? Yes or No

Health and Safety

Are there health hazards involved? Yes or No

If so, what kinds?_____

_____

Employee Organizations of a full-time worker.

Would you be expected to join a union or other employee organizations? Yes or No

Firms in our town or county where this type of job would be available.
(List a minimum of three.) Name and address. Be specific.

1._____

2._____

3._____

4._____

5._____

Sources of information used to make this study. (List a minimum of three.)

1. Title_____
   Publisher_____
   Date Published_____
2. Title_____
   Publisher_____
   Date Published_____
3. Title_____
   Publisher_____
   Date Published_____

Additional Means

1._____

2._____

How does this job interest you?

Appealing_____ Disappointing_____ No interest_____

Why? Be specific_____

_____

_____

TITLE: IS IT ALL IT'S CRACKED UP TO BE???

by Dick Sagara (CE)$_2$ Tigard, Oregon
revised by Naomi Stewart CIS Eugene, Oregon

OBJECTIVE: To give students an opportunity to examine specific occupations and make a comparison between a job advertisement and the information supplied by individuals working in the occupation.

TIME: May take over a week to compile all the information.

MATERIALS & FACILITIES NEEDED:

Newspaper advertisements
CIS Terminal and/or Occupational Information Printouts

PROCEDURES:

1. Announce the first day of the lesson that each person should look through the newspaper and select at least 1 job advertisement which interests them.
2. Assist the group in forming small 2-3 people units. Have each small group select 1-2 advertisements which sound most interesting.
3. Have the students obtain a description of the selected occupations from the CIS terminal or Occupational Information Printouts.
4. Have students consider if the occupation fits their expectations, based on the newspaper information.
5. Ask the students to investigate the CIS "BIB" file and do some additional research on the selected occupations. (*optional)
6. Have the students use the VISIT files if available to locate a place to talk to someone working in a specific occupation.
7. Make the necessary arrangements for a visit.
8. During the visit:
   a. have students share the advertisement
   b. have students share their CIS information
   c. have students share any other information they have obtained
   d. have the students ask any questions they might have about the occupation
9. Have the students compare the information they have gathered with the advertisement. Have them present how realistic the advertisement was.

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TITLE: PRE-WORK OBSERVATION ACTIVITY

by Dick Rumble Adams High School Portland, Oregon
revised by Naomi Stewart CIS Eugene, Oregon

OBJECTIVE: Students will identify interests and aptitudes and match them with available occupations.

TIME: Approximately 1 week

MATERIALS & FACILITIES NEEDED:

CIS User's Handbooks
1 CIS Needle-Sort for each 5-6 students (Fewer Needle-Sorts can be used, but the time needed for completion will be longer.)
CIS Occupational Information Printouts

PROCEDURES:

1. Instruct the students in the use of CIS Needle-Sort.
2. See that most students complete QUEST and select a workable list of occupations which interest them.
3. Have the students use the VISIT file to locate a person to talk to about one of the occupations they selected. If VISIT information is not available, the teacher should assist the students in arranging a visit.
4. Students should conduct the work site visit individually or in small groups.
5. Prior to the visit, have the students read the occupational description in the CIS Occupational Information Printouts and make a list of questions they wish answered. Refer them to "Questions for an Occupational VISIT" in the CIS User's Handbook for sample questions.
6. If there are particular tasks they would like to observe, they should also list them.
7. Ask students to do one or two of the following activities, using their visit as the topic:
   a. write a report
   b. give an oral report

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SOCIAL STUDIES

The following collection of CIS* learning activities has been provided to assist teachers and counselors in helping students and clients with their career information and decision-making needs.

The Social Studies section is broad based and addresses the ever-changing "reality" of population trends, labor market shifts and fragile resource bases. It encourages individuals to evaluate their personal values as they affect job choice and location. Considerable emphasis is placed on determining worker traits and satisfactions that can be derived from working.

LEARNING ACTIVITIES

C-1 Interests, Occupations & Employment
C-2 What Shall I Do Now?
C-3 From Raw Resources to Jobs
C-4 How Well Do You Know Your Parents?
C-5 Not Gold But Sand and Gravel
C-6 Where To From Here?
C-7 Worker Interest Patterns
C-8 Physical Handicaps: Are They Job Handicaps???
C-9 Necessity is the Mother of Invention - and Tomorrow's Jobs
C-10 U.S.A. Population Growth
C-11 You Want to do What Where???

Career Information System

Office of the Director
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403
(503) 686-3872

*CIS is presently being used in nearly 400 schools, colleges, and social agency settings in Oregon where career planning is on-going.

TITLE: INTERESTS, OCCUPATIONS & EMPLOYMENT

by Cathy Williams Madison High School Portland, Oregon
revised by Jeff Wiles CIS Eugene, Oregon

OBJECTIVE: Students will identify occupations that interest them and then, using appropriate resources, identify specific places where one might be employed in the occupations.

TIME: 2-3 days

MATERIALS & FACILITIES NEEDED:

The Yellow Pages
Oregon Directory of Manufacturers
Chamber of Commerce Publications
Newspaper Advertisements (both display ads and classified ads)
Local Directories of Businesses, Manufacturers, Social Agencies, etc.
Organizations and Associations (e.g., labor unions, professional associations, etc.)

PROCEDURES:

1. Students will fill out QUEST.
2. They will obtain a list of occupations and perhaps identify some interests and aptitudes they possess.
3. Students will select two occupations from their QUEST list which interest them the most. Using the resources mentioned above (students may want to use some or all), students will list and/or plot on maps the possible sites where the two occupations are located.
4. One more step could be to plan site visitations (see Activity #A-13).

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TITLE: WHAT SHALL I DO NOW?

by Dick Rumble	Adams High School	Portland, Oregon
submitted by Tim Drilling	CIS	Eugene, Oregon
revised by Jeff Wiles	CIS	Eugene, Oregon

OBJECTIVE: For junior and senior high school students to become aware that occupations can be closely related and that occupational worker traits may overlap. They also learn to gather data to make decisions.

TIME: 2 class periods

MATERIALS & FACILITIES NEEDED:

CIS Terminal or 4-5 Needle-Sort Decks
CIS User's Handbook
Personal History (samples follow)
Occupational Outlook Handbook
Dictionary of Occupational Titles

PROCEDURES:

Period I

1. Give each class member a copy of the personal history. (Sample history for Jeff and Michelle follow.)
2. Arrange the class in small groups (5-6 people).
3. Ask each group to complete QUEST for Jeff or Michelle using the information provided. Groups will very likely discuss and negotiate answers. Some useful ground rules for group discussion include:
   - A. Students should not seek total agreement on the correct answer but should strive for general agreement.
   - B. The responsibility for leading the discussion into each QUEST question should be rotated among group participants such that each member is responsible for 3-5 questions.
   - C. Students should be reminded that there is no correct answer and that they have considerable freedom in interpreting Jeff and Michelle's personal histories.

Period II

4. Each group should take a complete QUEST to the terminal or needle-sort deck and obtain a list of occupations for Jeff or Michelle. They should also get an appropriate occupational description and preparation, program and school information.
5. Hold small group or classroom discussions concerning decisions Jeff or Michelle might make.
6. In another session have the groups discuss the discrepancy in QUEST responses among groups and the reasons that the occupations, programs, etc. one group selected might differ from those of another group.

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Personal History of Michelle

Michelle is eighteen years old. In a short while she will graduate from high school. Her grades are good, especially in math and science. She is an intelligent and energetic person, with an active and questioning mind. Michelle likes working with people but would like to continue to study and eventually work in an area related to science.

Michelle feels strongly about someday having a family. She has equally strong feelings about continuing her education and attending college. Her family is moderately supportive of her wish to go to college, but point out the conflict of having a family and/or a career. They question whether a college education would be "wasted" on someone who may well end up in the home. Her folks are not particularly affluent, but the money for her education can be found.

What suggestions do you have for Michelle?

Teacher's Note: The history may be rewritten to deal with almost any subject area.

Personal History of Jeff

Jeff is a nineteen year old senior. His interest in standard school curriculum is minimal, and, as a result, his grades are only average. He has a problem thinking in terms of a "career."

Jeff reads extensively for pleasure, and frequently attends movies. He loves music and is in the process of learning to play guitar.

He will soon be out of school and faced with an "unappealing" job market. He understands and accepts the need for some kind of job (food, rent, etc.), but doesn't really know where to start looking.

Jeff is very bright, and is comfortable around people. He likes to travel and loves the out of doors. Do you have any suggestions for Jeff?

TITLE: FROM RAW RESOURCES TO JOBS
by Jeff Wiles CIS Eugene, Oregon

OBJECTIVE: To assist students in understanding how the process of developing raw resources into finished goods relates to occupations.

TIME: 1-2 class periods

MATERIALS & FACILITIES NEEDED:
CIS Terminal and/or CIS printout
Dictionary of Occupational Titles
Occupational Outlook Handbook

Optional:
Speakers Library Facilities

PROCEDURES:
1. The instructor will select a particular industry for each student group (e.g., food, auto, construction, cotton). Individual groups might want to sub-divide the industries.
2. Working in small groups (5-7 students), students will divide the industry into specific stages which trace product development from raw resource to consumable goods.
3. Students may then do one or both of the following:
   A. Students will identify as many occupations as possible which are associated with each phase of the process. For example, the food industry might be broken down into (jobs involved in) farming and harvesting (e.g., farmers, soil conservationists, seed salespeople), jobs involved in farming equipment (e.g., tractors, irrigation, mechanics), and jobs involved in marketing (e.g., canneries, exporters, distributors). The students will then research 6 jobs in each industry.
   B. Students will identify the three most common occupations associated with each stage of the manufacturing and delivery process. Of these occupations the students will identify those with the highest wage, best outlook and the occupation they consider "most desirable". The instructor will lead a discussion regarding: 1) how wage and outlook interact with the students' perceptions of "desirability"; 2) why particular occupations command a high wage and/or are in demand; 3) how does the nature of the work change as the process gets further away from raw resources.

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TITLE: HOW WELL DO YOU KNOW YOUR PARENTS?

by Dick Rumble Adams High School Portland, Oregon
revised by Jeff Wiles CIS Eugene, Oregon

OBJECTIVE: Junior and senior high school students will list interest patterns of their parents and speculate on the effect of those interest patterns on their job satisfaction.

TIME: 2 class periods and time for discussion between student and parent

MATERIALS & FACILITIES NEEDED:

CIS Terminal or CIS Needle-Sort
CIS User's Handbooks

PROCEDURES:

1. This activity may precede or follow the students' use of QUEST.
2. Students will complete QUEST as if they were on of their parents. They should also get a QUEST List for their parent.
3. Students will interview their parents to identify how they would have responded to QUEST. Students should make special note of ways their responses differ from their parents. Students are encouraged to discuss "why" their perceptions differ. During the interview the student should also discuss their parent's QUEST List.
4. A follow-up discussion should take place in class after most students have completed their interview. Discussion questions might include:
   - A. On what QUEST items did the students' responses differ most from their parents? On which items were they the same?
   - B. What are the reasons for differing perceptions?
   - C. In what ways do their parents influence their own answers to the QUEST items?
   - D. In general, how do their parents influence their career choice?

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TITLE: NOT GOLD BUT SAND AND GRAVEL

by Jan Goddard Marysville School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE: Junior and senior high and community college students will use deductive reasoning and simple research to figure costs and implications of hauling or importing sand and gravel into the Portland, Oregon, area if supplies of this resource are exhausted. The costs of this hypothetical problem will be calculated with 90% accuracy.

TIME: Approximately 1 week

MATERIALS & FACILITIES NEEDED:

Telephone directories
Occupational Outlook Handbook
Dictionary of Occupational Titles
CIS Terminal and/or CIS Needle-Sort
Booklets prepared by the Oregon Geology Lab (obtain from State Office Bldg., Portland)
Speaker: Dr. Mason, state geologist on topic of Problems of Natural Resources
Field Trips: sand and gravel mining sites
Simple Map of area mining sites

PROCEDURES:

1. Teacher will lead a discussion concerning where the sand and gravel in our area comes from.
2. Students are asked to list occupations involving mining sand and gravel and locate some mining sites.
3. An outside speaker may be invited to visit the class and discuss natural resources, providing general background.
4. Next students are asked to list industries that depend on sand and gravel (e.g., road building, home construction, concrete manufacturing).
5. Then students are asked to calculate costs of present sand and gravel industry versus the cost if the existing supply of this resource in the area was exhausted and sand and gravel had to be imported.
6. Some students may wish to undertake a research project to determine from an economic point of view how one selected industry using sand and gravel made it. The research will lead the students to sand and gravel pits in Oregon.

NOTE: This exercise may be adapted to another location, resource or industry by acquiring different materials and/or speakers.

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TITLE: WHERE TO FROM HERE?
by Norman Berney Clackamas Community College Oregon City, Oregon

OBJECTIVE: Students will relate their personal values to the work world and to an occupation of interest, by using CIS.

TIME: 2-3 class periods

MATERIALS & FACILITIES NEEDED:
CIS Terminal or CIS Needle-Sort (deck & occupational information printout)
CIS User's Handbooks
"Deciding" (if available) from CEEB

PROCEDURES:
1. Each student is given a User Handbook & asked to write down 5 occupation titles in which he/she has an interest. (Refer to pages 8-13.)
2. The teacher can then lead a discussion of the relationship of personal values to the selection of occupational choices. The CIS QUEST questionnaire and/or materials from the College Entrance Examination Board's Deciding program may be used to stimulate discussion. Whatever the case, values like prestige, living location, money, leisure time, etc. should be related to occupational choice-making.
3. Have the students complete the QUEST questionnaire and discuss each of the questions in relation to value identification and to their personal objectives.
4. Assign each student to go through the computerized or needle-sort version of CIS and (a) complete QUEST; (b) find out "WHY NOT" any of their pre-selected occupations are not on their QUEST list; and (c) get occupational and educational information concerning occupations in which they are interested.
5. After each student has used the System, a class discussion should ensue dealing with the following questions: Did your pre-selected occupations show up on your list? If not, why not? What new occupations did you discover that you have interest in now?, etc. Students could be asked to write a paper on the foregoing.

NOTE: The teacher needs to be familiar with QUEST and the relationship of the questions to various occupations as well as with relating personal values to occupational choice-making.

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TITLE: WORKER INTEREST PATTERNS

by Marilyn Fellers	Binnsmead School	Portland, Oregon
submitted by Dick Rumble	Portland Public Schools	Portland, Oregon
revised by Jeff Wiles	CIS	Eugene, Oregon

OBJECTIVE: To assist students in better understanding the relationship between temperments and abilities and successful employment.

TIME: 1 class period

MATERIALS & FACILITIES NEEDED:

CIS User's Handbooks

PROCEDURES:

1. Students will be given the following imaginary situation:
   Imagine that twenty people are going to establish a community in Alaska. There is nothing there now except some buildings that could be used for temporary living. There is potential wealth in natural resources, recreation and tourism, and agriculture. No additional information is available.
2. Students will identify the twenty occupations they think most important to have represented. They should use the alphabetical list of occupations found in the CIS User's Handbook.
3. Students will then be asked to list the temperaments and abilities they think most important for the "settler's" to possess. Students should prioritize (from 1-18) those items in "nature of work", "abilities", "education & training", and "working conditions" sections of QUEST that they feel most important.
4. The instructor will lead a discussion that focuses on how closely the personal attributes match with the occupation. The discussion should also focus on why the occupations and attributes were selected.

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TITLE: PHYSICAL HANDICAPS: ARE THEY JOB HANDICAPS???

by Marilyn Olson Lane ESD Eugene, Oregon
submitted by Dick Sagara (CE)$_2$ Tigard, Oregon

OBJECTIVE: For junior & senior high school students to become aware of how they feel about the productivity of a handicapped person.

TIME: 1 or more class periods. It is essential to the success of the activity that each student use the needle-sort.

MATERIALS & FACILITIES NEEDED:

CIS Needle-sort
CIS User's Handbooks
Worksheets (sample on following pages)
1 Occupational Information Printout

PROCEDURES:

1. Have the students work individually or in small groups.
2. Have the students pretend that they have a certain physical handicap: sight, hearing, little or no use of legs, arms, etc. It might be effective to go into a simulation exercise with the students actually going about their daily lives with such a handicap.
3. Have the students describe in one or two sentences, the handicap that they have chosen. It is important that they record how they view the handicap. What things can they do? What things are they unable to do? How do they feel?
4. Have the students select questions from QUEST that are affected by the handicap and list the questions and appropriate answers on the worksheet.
5. The students should now use the needle-sort deck and sort the cards. Have them list 5 of the "best" jobs that were lost from the deck.
6. Have the students list 5 "interesting" jobs that remained on the needle.
7. Ask the students if they agree with the results. Is it a good idea for employers to hire the handicapped?
8. Class discussion may ensue following the completion of the exercise.

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NEEDLE-SORT/CAREER AWARENESS and EXPLORATION Name _____

Physical Handicaps: Are They Job Handicaps???

Pretend that you have a particular physical handicap: sight, hearing, mental, little or no use of legs, arms, etc. Describe your handicap in one or two sentences:

_____

_____

_____

Which of the 24 questions would be affected by your "handicap"? List those questions below, and the appropriate answer.

Questions	Answers
Example: 16 Physical Activity	SIT

Now put your needle through the holes for the questions listed above and list some of the "best" jobs you would lose from the deck.

_____ _____

_____ _____

_____ _____

List interesting jobs that remained on your needle after all these questions were answered. From what you have discovered here, do you think it's a good idea for employers to hire the handicapped?

Jobs left	Comment: _____

TITLE: NECESSITY IS THE MOTHER OF INVENTION - AND TOMORROW'S JOBS

by Alice Brown Wilson High School Portland, Oregon
revised by Jeff Wiles CIS Eugene, Oregon

OBJECTIVE: To help junior and senior high school students realize how jobs change, appear, and disappear because of changing styles and conditions, scientific discoveries, inventions, etc., and to know that his/her future occupation may not yet be in existence.

TIME: 2-3 class periods

MATERIALS & FACILITIES NEEDED: CIS Terminal and/or CIS Needle-Sort -- CIS User's Handbooks -- Occupational Outlook Handbook -- Magazines (Current and Old) -- Newspapers (Current and Old) -- Library

PROCEDURES:

1. Using textbooks, magazines, newspapers, and library resources, ask student to find names of two jobs that have disappeared. Then ask student to find two jobs that have been created in the past five or six years and one job just now emerging - a job of the future. These should be in a career area in which he/she is interested.
2. Students will then do one or more of the following activities:
   A. Students are divided into small groups to do the following:
      1. Share the jobs they have identified in step 1
      2. "Brainstorm" to identify as many causes as possible which explain why occupations are eliminated and/or created
      3. Discuss and relate the three causes which the group feels best explains the elimination and creation of jobs

      The instructor calls students back into the larger group after each group has completed the previous three steps and leads a discussion regarding each group's reasons for jobs being created and eliminated.
   B. Students will prepare a report on the two existing jobs and the job of the future using information from the periodicals, the available reference books and the Career Information System (including occupational description, preparation, training program, and school files).

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TITLE: U.S.A. POPULATION GROWTH
by Paul Franklin CIS Eugene, Oregon

OBJECTIVE: To understand the effects population growth and shifts in the labor market will have on a student's choice of a career

TIME: Approximately 1 week

MATERIALS & FACILITIES NEEDED:
CIS Terminal and/or CIS Needle-Sort
CIS User's Handbooks
Occupational Outlook Handbook
Dictionary of Occupational Titles

PROCEDURES:

1. Students complete QUEST.
2. From their list of occupations, they select 3 they might like to pursue.
3. Using occupational descriptions, PREP, and other sources, students research the long-range occupational outlook for their 3 occupations.
4. Students then write a paper explaining their findings including past and projected employment trends; what factors will influence future trends; and what factors might change the employment forecast, etc.
5. The instructor will lead a discussion focusing on the factors students identify as influencing future trends, etc.

NOTE: The teacher may integrate research skills into this exercise.

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TITLE: YOU WANT TO DO WHAT WHERE???
by Sande Ferrell Glenhaven School Portland, Oregon

OBJECTIVE: Junior and senior high students shall become aware that choice of job location pre-determines the number and choices of available jobs.

TIME: 1 class period

MATERIALS & FACILITIES NEEDED:
CIS User's Handbooks
CIS Needle-Sort deck

PROCEDURES:
1. Organize students into small groups, each group with a needle-sort deck.
2. Using the deck and needle, each student should answer questions 20 and 21 (city size and region).
3. Students will then look through the remaining deck, placing the cards in piles of interest levels (good, fair, poor for example).
4. Looking through the good pile students should ask: Are the jobs I am primarily interested in at this time in the pile? If not, it was my choice of location. Am I willing to live in another region? Am I willing to change the size of the city in which I live and work?
5. Students may want to sort their chosen job from the discard deck if they don't have it in their piles and re-evaluate their answers based on new information.

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SCIENCE

LEARNING ACTIVITIES

D-1 Comparing Careers in Science
D-2 Our Human Environment
D-3 Viewmaster
D-4 Our Feet on the Ground

TITLE: COMPARING CAREERS IN SCIENCE

by Carolyn Voit — Wilson High School — Portland, Oregon
revised by Naomi Stewart — Oregon CIS — Eugene, Oregon

OBJECTIVE: Students will compare 2 related occupations in the science field and learn to what extent education and preparation affect earnings and opportunities for advancement in the field.

TIME: 1-2 days

MATERIALS & FACILITIES NEEDED:

Worksheets (sample following)
CIS Terminal and/or CIS Needle-Sort
CIS User's Handbooks
Occupational Outlook Handbook
Career Center resources (if available)

PROCEDURES:

1. Teacher distributes a worksheet and a CIS User's Handbook to each student.
2. The students are asked to choose 2 science related occupations -- one requiring 4 or more years of education beyond high school, the other requiring less than 4 years training. For example, students could compare Laboratory Testers (2656) and Health Technicians/Technologists (2654). Occupations may be sorted according to training requirements by using the Needle-Sort and answering question #17 with "TWO" (stick needle in hole #29).
3. Students are encouraged to use the career center (if available) and the library to supplement information gathered from CIS.
4. The students will work on an individual basis for approximately 1 week (or less) and then a class discussion will be held to exchange findings.
5. A visit to a job site could be a valuable addition to the previous activities.

NOTE: Sample worksheet on following page suggested by Alice Brown, Wilson High School. A similar worksheet could be used to gather data on two related occupations in any subject area or occupational cluster. For example, students could compare two business-related occupations or two social service-related occupations.

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NAME_____

	#1 Science Related Occupation (4 or more years beyond high school)	#2 Science Related Occupation (Less than 4 years training)
Entry wage (hour, week, month)		
Abilities Required		
Personal qualities required		
Union or License		
Education required		
Specific High School courses		
Where can you get training near here?		
Outlook over next 5-10 years		
Where would you work? (Indoors, outdoors, large city, etc.)		
SUMMARY: ADVANTAGES		
SUMMARY: DISADVANTAGES		
(Optional) Interview of a person in this field		

TITLE: OUR HUMAN ENVIRONMENT

by Jan Goddard	Marysville School	Portland, Oregon
submitted by Cathy Williams	Madison High School	Portland, Oregon
revised by Mike Neill	CIS	Eugene, Oregon

OBJECTIVE: To acquaint students with ecosystems and the jobs and job descriptions related to a few select ecosystems.

TIME: 2-3 days

MATERIALS & FACILITIES NEEDED:

CIS Terminal or CIS Needle-Sort with occupation information printouts
CIS User's Handbooks
List of ecosystems
Poster paper
Magazines
Scissors & glue
Felt Pen

PROCEDURES:

1. The class is presented with a list of Oregon Ecosystems:
   - desert
   - coast
   - open sea
   - forest
   - urban environment
   - valley farmland
   - mountain
   - river
2. Each student selects one ecosystem to be the topic of research.
3. Each student makes a collage representing the ecosystem. For example, students may choose coastal scenes, pictures of tide pools, etc., to represent the Oregon coast.
4. The student will select occupations that are specific to the ecosystem they have chosen.
5. The student will "put man into the picture" by adding photographs of men and women working in the ecosystem. For example, the coast collage might include a charter boat, longshoremen, fishermen/women, etc.
6. Each student might write a report on the occupations selected.
7. Related activities might be:
   a. build a physical model
   b. construct a photo essay
   c. keep a career journal

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Career Information System

NO. D-3

TITLE: VIEWMASTER

by Jan Goddard — Marysville School — Portland, Oregon
submitted by Cathy Williams — Madison High School — Portland, Oregon

OBJECTIVE: To give students an opportunity to view the lens making industry and evaluate the processes involved.

TIME: 2-3 days

MATERIALS & FACILITIES NEEDED:

Field trip arrangements to GAF Corporations, Progress, Oregon
Occupational Outlook Handbook
Occupational Information Printouts
CIS Terminal or CIS Needle-Sort
CIS User's Handbooks

PROCEDURES:

1. Each participant of this science field trip will:
   a. observe the process of plastic lens making (also plastic cases)
   b. observe the packaging processes
   c. observe the recycling of plastic waste products
   d. summarize no less than ten job activities observed in the processes
2. Students will relate process of making plastic lens, grinding, polishing, etc., in a short report. The report could be in the form of a flow chart.
3. They will list special skills required and special precautions employed to prevent flaws or scratches in lens making.
4. If only a small group attends, they will relate their report to the balance of class who didn't have the opportunity to observe the processes.
5. Students will compare their observations with the information available through CIS concerning the jobs' preparation, descriptions, programs, etc.

NOTE: This activity could easily be adapted to explore careers in any production occupation which allows visitors.

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Career Information System

NO. D-4

TITLE: OUR FEET ON THE GROUND

by Jan Goddard — Marysville School — Portland, Oregon
submitted by Cathy Williams — Madison High School — Portland, Oregon

OBJECTIVE: To acquaint students with the many occupational specialties that exist within the area of geology.

TIME: 1 day

MATERIALS & FACILITIES NEEDED:

CIS Occupational and Program Information Printouts
Occupational Outlook Handbook
Dictionary of Occupational Titles, 4th Edition
Speakers (like state-employed geologists) optional

PROCEDURES:

This activity is designed to give students an idea of the specialties that may exist within a general occupational title like "geologist". The instructor may wish to mention to the class that "geologist" is a very small occupation, however, and each of the occupational specialties that the class will work on in this exercise is even smaller. The Oregon Employment Division estimates that in 1979, only 150 geologists of all types will be employed in Oregon (or .015% of the total number of people employed in the state).

1. Students will each choose three types of geologists from the accompanying list for research.
2. For each occupational specialty, the student will state:
   a. the tasks performed by the geologist in the specialty
   b. how the geologist serves industry and/or society
   c. some of the opportunities for technical assistant positions
3. Suggest the following resources for students' research:
   a. Career Information System's occupational printouts (DESC 2626 Earth Scientists and DESC 5914 Petroleum Production Workers); and program of study printouts (PROG 526 Geology).
   b. Occupational Outlook Handbook (see "Environmental Scientists" and "Petroleum Geologists").
   c. Dictionary of Occupational Titles, 4th Edition (see Geologists, p. 41).
4. Field trips or speakers (geologists) may augment this activity.

NOTE: This activity could be adapted to explore occupational specialties within other occupations. You may also develop your own worksheets. Some specialties are listed in the occupational information printouts. Others may be located using the 4th Edition of the Dictionary of Occupational Titles.

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GEOLOGIST SPECIALTIES WORKSHEET

1. Petrologists
   D.O.T. 024 081.066
2. Volcanologists
   D.O.T. 024 081.086
3. Geomorphologists
   D.O.T. 024 081.030
4. Paleontologists
   D.O.T. 024 081.062
5. Stratigraphers
   D.O.T. 024 081.078
6. Geological Oceanographers
   D.O.T. 024 081.054
7. Mineralogists
   D.O.T. 024 081.050
8. Geophysicists
   D.O.T. 024 081.038
9. Petroleum geologists
   D.O.T. 024 081.022
10. Hydrologists
    D.O.T. 024 081.046

For <u>three</u> of the above occupational specialties, provide the following:

* Tasks performed by the geologist in the specialty
* Ways the geologist serves industry and/or society
* Opportunities for technical assistants in the specialty

MATHEMATICS

LEARNING ACTIVITIES

E-1 Me and My Math
E-2 What a Difference Math Makes
E-3 Measuring Tools

TITLE: ME AND MY MATH

by Carole Ishimaru — Colorado CIS — Boulder, Colorado
revised by Naomi Stewart — Oregon CIS — Eugene, Oregon

OBJECTIVE: Students will develop an awareness of how their attitudes about their mathematical abilities affect occupational choices.

TIME: About 30 minutes per student (suggested continuous activity as terminal time is available).

MATERIALS & FACILITIES NEEDED:

Math-Related Worksheet
CIS User's Handbooks
CIS terminal
CIS Occupational, Program and School Information Printouts

PROCEDURES:

1. Distribute Math-Related Worksheet and CIS User's Handbook to each student; direct them to pages 4-8 of the User's Handbook and ask that they complete QUEST. Once QUEST is completed, direct each to use the CIS program on the terminal to enter their responses to QUEST using the directions provided by the worksheet.
2. In order to increase the number of students using the terminal to enter their QUEST responses, the CIS occupations, program and school printouts should be available in class for student referrals about occupational descriptions and program information; if terminal time is readily available, this information search can be done on the terminal after the completion of QUEST.
3. If the facilitator of this activity is interested in the specific occupations affected by attitudes toward mathematical abilities, the command "LIST" should be typed after the computer has provided the number of remaining occupations. This should be done in procedures #2 and #4 in the Math-Related Worksheet. If terminal time is readily available, the instructions for this procedure should be added to the worksheet; if time is not available, the facilitator could get the lists of occupations related to each response in QUEST Question #13 off the terminal. These lists can be duplicated or posted as examples of the affect of attitudes on occupational choices.

NOTE: This worksheet can be adapted for other subject areas by changing the QUEST question to which students are directed. For example, the English/Language Arts teacher may want to direct students to question #12; the Industrial Arts teacher may want to direct students to question #10.

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Math-Related Worksheet

Note: It's not always easy to relate your classroom experiences to your future. This particular worksheet directs your use of CIS to illustrate how your attitudes about your math ability affect your career choices and preparation.

1. Answer QUEST questions #1-12 as directed on the computer.
2. After question #13 appears on the print-out sheet, type the words, "HOW MANY" instead of the answer to question #13; press the return key. The computer will provide you with the number of occupations remaining on your list; what is this number? _____
3. Question #13 will reappear on the print-out sheet; answer it with your estimation of your mathematical abilities. Press the return key.
4. After question #14 appears, type the words, "HOW MANY" instead of the answer to question #14; press the return key. The computer will provide you with the number of occupations remaining on your list; what is this number? _____
5. Finish answering the QUEST questionnaire; how many occupations are listed? _____
6. Follow the computer directions to change your answer to Question #13 to "NHI". (Do this only if your original answer was <u>not</u> "NHI".) Type "HOW MANY"; what is the number of occupations that the computer provides? _____
7. How does your attitude about your mathematical abilities affect the number of occupational choices available on your print-out?

   A. Place the # of occupations from question #2 above here ↓ _____ − Place the # of occupations from question #4 above here ↓ _____ = _____

   B. Place the # of occupations from question #5 above here ↓ _____ − Place the # of occupations from question #6 above here ↓ _____ = _____

8. How many occupations did you "gain" in question #7A? _____

   How many occupations did you "lose" in question #7A? _____

   How many occupations did you "gain" in question #7B? _____

   How many occupations did you "lose" in question #7B? _____

9. Are you satisfied with the way in which your occupational choices are affected by your attitudes toward your mathematical abilities? YES/NO

   If you are not satisfied, what are you willing to do to create a change with which you will be satisfied? (It may be interesting for you to discuss this question with your math teacher.) PROPOSAL: _____

TITLE: WHAT A DIFFERENCE MATH MAKES

by Vickie Gardner	Hillsboro Senior High	Hillsboro, Oregon
variation by Marilyn Olson	Lane ESD	Eugene, Oregon
revised by Naomi Stewart	CIS	Eugene, Oregon

OBJECTIVE: Students will know what careers are open to them if they have high, average, or low math ability.

TIME: 2-3 class periods

MATERIALS & FACILITIES NEEDED:

CIS Terminal
CIS User's Handbooks

PROCEDURES:

1. Ask the class what difference math knowledge makes in career choice.
2. Have class make lists:
   a. occupations requiring high math ability
   b. occupations requiring average math ability
   c. occupations requiring little math ability
3. The students and teacher complete 1 QUEST, marking NHI for question 13. They obtain a list of occupations.
4. They repeat the process responding NM for question 13, and obtain a list.
5. Again repeat the process responding NLO for question 13, and obtain a list.
6. A class discussion ensues in which the emphasis is placed on "what a difference math makes" in occupational choice.

These same exercises can be used by an English teacher using question 12, a counselor using question 17 with potential drop-outs, etc. The important aspect of the exercise is to keep all responses consistent except for the experimental question. By comparing the different lists of occupations obtained by varying the responses to the experimental question, the importance of that aspect on occupational choice can be discussed.

NOTE: A variation of this activity is to answer only question 13 in QUEST. Instruct students to respond with low use of numbers (NLO-17). Ask the students to select 5 occupations of interest that were eliminated. Have students write or discuss why math is important for each of the selected occupations.

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TITLE: MEASURING TOOLS

by John Harris — Binnsmead School — Portland, Oregon
submitted by Cathy Williams — Madison High School — Portland, Oregon

OBJECTIVE: Students will become familiar with measuring tools and their use, and become acquainted with occupations that require the use of such tools.

TIME: 1-2 class periods, depending on the tools available.

MATERIALS & FACILITIES NEEDED:

CIS Terminal and/or CIS Needle-Sort

An assortment of measuring tools. For suggested tools, see "Resource Sheet for Measuring Tools" on the back of this sheet.

PROCEDURES:

1. Students will use the measuring tools. (Since some tools are expensive and difficult to acquire, you may want to invite a person in the occupation to bring his or her tools to demonstrate how they are used.)
2. Students are to make a list of seven occupations that require the use of measuring tools.
3. Students will research two occupations of their choice including job description and training information.

NOTE: A guest speaker or occupational visit could supplement this activity.

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Resource Sheet for MEASURING TOOLS

The following list is not exhaustive, but it may be of help as you assemble tools for this activity.

Construction:

- metal or plastic measuring tape
- level
- square
- plumb line
- drills (sizes of bits)

Earth Scientists, Surveyors:

- survey instrument

Health:

- thermometer
- watch w/second hand (for measuring pulse)
- scale
- gram weights
- liquid measures

Mechanics:

- wrenches
- socket wrenches
- volume measures - quarts of oil, etc.
- pressure gauges

Photography:

- 35 mm camera without film for learning about lens size at various settings
- reduction, enlarging machines
- liquid measures for preparing solutions

Post Office & Shipping Clerks:

- measuring tape for measuring packages so that they are within postal requirements
- postal scales

Printing Production:

- pica spacing

Science:

- thermometer
- scale
- liquid measures

PHYSICAL EDUCATION

LEARNING ACTIVITIES

F-1 Finding Out About P.E. Careers

Career Information System NO. F-1

TITLE: FINDING OUT ABOUT P.E. CAREERS

by Sam Ignazzitto	Lent School	Portland, Oregon
and Dale Langley	Binnsmead School	Portland, Oregon
submitted by Cathy Williams	Madison High School	Portland, Oregon

OBJECTIVE: Students will identify and describe three different occupations in the P.E. area and identify education requirements and post high school training programs.

TIME: 1 week

MATERIALS & FACILITIES NEEDED:

CIS Occupational, Program and School Information Printouts
CIS User's Handbooks (Needle-Sort version) for each student
Student Interview Forms (see attached sample)
Camera (optional)

PROCEDURES:

1. Pass out to each student a copy of the CIS User's Handbook. Have students search the occupational list (pages 7-14) for occupations related to P.E. or read them the list of occupations below and have students mark the appropriate occupations in their handbook for later reference.

SELECTED OCCUPATIONS RELATED TO PHYSICAL EDUCATION

8122 Chiropractors
8458 Education Program Specialists (in P.E. area)
8127 Physical Therapists
9868 Professional Athletes
9824 Radio & Television Announcers (sportscasters)
8488 Recreation Aides
8486 Recreation Leaders
8482 Recreation Program Directors
8456 Teachers, Elementary & Secondary (P.E. teachers)
2176 Writers & Editors (sportswriters)

2. Then have students mark the Programs of Study for Physical Education (PROG 235) and Health Education (PROG 232) in the handbook list (pages 15-19).
3. After students have marked these occupations and programs in their handbooks have them get into groups (2 to 6 students) and choose three occupations for research.
4. Using printed information (such as the CIS occupation, program and school printouts), students prepare short descriptions of the three occupations, identify the major education requirements for each occupation and identify, when appropriate to the occupation, two or three post high school training programs.
5. Students then arrange visits to observe the three occupations chosen. (In some areas, students can be referred to the VISIT file.)
6. Students may use the questions on the interview outline (see following page) to construct their own interview form. Students then interview a person in the field for each occupation chosen. Pictures add interest to the activity (optional).
7. After all interviews are completed, class members compare their interview observations with their research into the occupations.

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ART

LEARNING ACTIVITIES

G-1 Creativity and Your Career
G-2 Exploring Careers in Art

TITLE: CREATIVITY AND YOUR CAREER
by Naomi Stewart Oregon CIS Eugene, Oregon

OBJECTIVE: Students will identify and investigate occupations requiring creativity in using ideas and expressing feelings.

TIME: 3-5 class periods

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort (several Needle-Sorts may be used if they are available)
CIS Occupational, Program, and School Information Printouts
Occupational Outlook Handbook

PROCEDURES:

1. As a class, discuss how creativity relates to art. Also discuss how artistic ability and training can contribute to a person's creative ability in a career.
2. Have one student use the Needle-Sort and answer QUEST questions #8 with "NO" (stick the needle through hole #8). Collect the occupations which fall off the needle and read the occupation titles to the class. These occupations call for creativity.
3. Discuss the types of occupations which were listed. Do any seem directly art-related? Which ones? (You may wish to divide the class into groups and have each group sort a portion of the cards which fell off according to whether they are "art-related" or "other".) Do any art-related occupations remain on the needle?
4. Have each student research one of the art-related careers as well as one of the occupations in the "OTHER" category. The students should include a discussion of how creativity is used in the job. Possible resources include the CIS Occupational printouts, occupational brochures, and personal visits. The research could be presented as a written or oral report.
5. Discuss how the ability to be creative in ones job can lead to job satisfaction. The pressure side of "needing to be creative" could also be presented.

NOTE: If several Needle-Sorts are available, several groups of students could answer question 8 and sort through the occupations which fall off the needle. The goups could compare their lists of art-related occupations to see if they agree.

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TITLE: EXPLORING CAREERS IN ART

by Naomi Stewart CIS Eugene, Oregon
(adapted from "Writing A Skill-Related Resume" by Violet Cooper, Linn-Benton Community College, Albany, Oregon)

OBJECTIVE: Students will identify the skills required to enter a selected art-related occupation, express the extent to which they possess these skills, and write a skill-related resume.

TIME: 2 class periods

MATERIALS & FACILITIES NEEDED:

CIS User's Handbooks
CIS Terminal and/or CIS Occupational Printouts
Exploring Careers In Art Worksheet

PROCEDURES:

1. Each student should choose an art-related occupation in the CIS file.
2. From the occupational description have the student list all of the verbs and/or verb phrases that serve to describe what a person does in that occupation. For example, architects design construction, monitor construction, provide cost information, prepare sketches, etc.
3. For at least six of the verbs listed, the student will write a paragraph on his or her ability to perform those tasks.
4. Have the student write a resume or a statement to go with a job application in which the student includes the paragraphs on his or her skills.

NOTE: The worksheet may be revised to explore careers related to other subject areas.

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EXPLORING CAREERS IN ART

This worksheet will introduce you to the skills required for successful performance in an art-related career. It will also assist you in writing a resume based on the skills you possess.

Please read through each step carefully and do what is requested.

STEP 1

Select one occupation from the list below. If possible, select an occupation you would consider entering after high school or after acquiring additional training. (If these occupations do not interest you, you may select an occupation which does not appear on the list.)

2366 Interior Designers and Decorators
4442 Clothes Designers and Patternmakers
4724 Commercial Artists and Designers
4734 Photographers
5982 Handcrafters
8454 University and College Teachers (Art)
8456 Secondary Teachers (Art)

STEP 2

Read the CIS Occupational Information related to the occupation you selected slowly, phrase by phrase. List all of the verbs and verb phrases that serve to describe what a person <u>does</u> in that occupation. For example, the information on Interior Designers & Decorators includes the following verb phrases: plan interior space; consult with clients and architects; coordinate colors, fabrics, etc.; and select colors, fabrics, etc.

STEP 3

For at least six of the verbs listed, write a brief paragraph which relates your ability to perform the tasks described.

STEP 4

Write a resume in which you include the paragraphs written in Step 3. The resume should be designed to highlight your skills rather than your education alone.

PERSONAL FINANCE

LEARNING ACTIVITIES

H-1 Warning: This Occupation May Be Hazardous To Your Wealth
H-2 Economics and Your Life Style

TITLE: WARNING: THIS OCCUPATION MAY BE HAZARDOUS TO YOUR WEALTH

by Dick Sagara $(CE)_2$ Tigard, Oregon
revised by Naomi Stewart CIS Eugene, Oregon

OBJECTIVE: For small groups of students to examine the costs of occupational preparation. The costs will be computed in terms of both time and money.

TIME: 2-3 class periods

MATERIALS & FACILITIES NEEDED:

CIS User's Handbook
CIS Terminal
Comparison Worksheet (sample following)

PROCEDURES:

1. Announce the activity before the first meeting by telling the students they should be considering several occupations that interest them.
2. Divide the class into small groups (3-4) and have each group agree on several occupations they would like to investigate.
3. Have the students obtain the appropriate description and preparation files (both the high school subjects file and the "PREP" files) for their occupations.
4. Have each group narrow their selection of occupations to 2. NOTE: It might be interesting to have them select 2 occupations that vary greatly in amount and type of preparation needed for entry.
5. Obtain the "PROG" files for the 2 occupations if PROG files are listed in the PREP statement.
6. Have the groups find at least 3 schools that offer the courses needed to prepare for the occupations. NOTE: If one of the occupations calls for little or no advanced schooling, the students may stop at this step. The students should be discouraged from selecting 2 occupations that fit this category.
7. Students should then investigate the costs of these schools through use of the SCH file. Have them average the cost of schooling to enter the occupations.
8. Find the salaries of each occupation.
9. Complete the attached worksheet to compare both time and money.

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Comparison Worksheet

Name _____

Fill in the titles of the 2 occupations you selected in the blanks below. Gather information about each occupation as requested and compare costs, preparation time and salaries.

1. Occupational Title and CIS Number		
2. Amount of preparation needed (time required) see PREP		
3. Cost of preparation See PROG and SCH files.	_____ x _____yrs = ____	_____ x _____yrs = ____
4. Beginning salary		
5. Average salary		
6. Predicted High salary (if available)		
7. Opportunities for Advancement		

8. Is there a relationship between the salaries for the occupations and the costs of preparing for the occupations? If so, why? If not, why not? _____

_____

_____

9. Is there a relationship between the opportunities for advancement and the amount of preparation needed? Explain why or why not. _____

_____

_____

10. Which occupation would you choose? Why? _____

_____

_____

_____

TITLE: ECONOMICS AND YOUR LIFE STYLE

by Marilyn Olson Lane ESD Eugene, Oregon
submitted by Dick Sagara (CE)$_2$ Tigard, Oregon
revised by Naomi Stewart CIS Eugene, Oregon

OBJECTIVE: Students will examine some of the things they expect to consume and will determine how much money they will need to fulfill their plans.

TIME: Sufficient time to allow each student to use the CIS Needle-Sort (1-3 class periods).

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort
CIS User's Handbooks
Worksheet (sample follows)
CIS Occupational, Program and School Printouts

PROCEDURES:

1. This exercise may be done individually or in small groups.
2. As an assignment prior to the lesson, have the students clip from the classified ads a place that they would like to live in after they leave home (house, apt., room). Have them determine the monthly payment or rent on such a place.
3. Have the students fill out question #2 on the attachment. It might be interesting for students to compare the costs per month that they have in this section.
4. Have the students list 10 things that they plan to buy to furnish their place of residence. Using catalogs, newspaper ads, etc., have them list a price for each object.
5. Have them total the cost of the furnishings. Divide this by 12 to determine the monthly payments (this assumes that you could pay over the year).
6. Have the students add up the housing payment, food and clothing payment, and monthly furnishing payment.
7. Keeping the sum in mind, have the students determine the minimum salary that they would need. Remind them that 20% to 30% of your salary may be deducted for taxes and other "benefits".
8. With this information on the salary they would need, have the students answer question #18. Have them list five jobs that remain on their needles when they answer Question #18.
9. After students have completed their worksheets, have them list the length of training required for each occupation they listed. (Use the CIS occupational printouts as a resource.) What items might they have to "give up" for awhile in orde to get the necessary training?
10. Discuss the importance of considering personal interests and abilities in addition to beginning wages when deciding on a career. Job satisfaction and upward mobility should also be discussed.

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Name_____

LIFESTYLE and ECONOMICS

1. Clip from the classified ads in a newspaper a place to live (house, apt., room) to fit your description of where you would like to live after you leave home.

Monthly payment or rent $_____

2. After you leave home do you plan to:

_____marry _____eat out once a week or more ($_____per mo.)

_____have children _____dress fashionably ($_____per mo.)

_____own one or more cars _____eat well ($_____per mo.)

3. List 10 things you will buy immediately to furnish your home. Using catalogs or newspaper ads, list a price you would need to pay for the item.

a._____	$_____	f._____	$_____
b._____	$_____	g._____	$_____
c._____	$_____	h._____	$_____
d._____	$_____	i._____	$_____
e._____	$_____	j._____	$_____
(a)Total	_____	(b)Total	_____

Grand Total for furnishings = $_____ (a) + (b)

Divide the Grand Total by 12 $_____ (if you could pay over 1 year)

4. Now add up your housing payment $_____
food and clothing $_____ = $_____
monthly payments on furnishings $_____

5. Based on information given above, what would you suggest would be a minimum salary you would need per month? (Remember that 20% to 30% of the salary may be deducted for taxes or other 'benefits'.)

I would need a minimum salary of $_____

6. Now answer question 18 in the User's Handbook, and list 5 jobs remaining on your needle that you would like to do.

a._____ b._____

c._____ d._____

e._____

CAREER CLUSTERS

LEARNING ACTIVITIES

Business

I-1 Exploring Business Careers

Industrial Arts

I-2 Tools Used Within Shop Careers

Health

I-3 Careers as Health Technicians/Technologists

Food Services

I-4 Commercial Kitchens

TITLE: EXPLORING BUSINESS CAREERS

by Maggie Burton — CIS — Eugene, Oregon
and Sue Berg — North Eugene High School — Eugene, Oregon

OBJECTIVE: Students will recognize the different types of jobs within each business career cluster and the characteristics of job groups within a cluster.

TIME: Enough time for each student to use the CIS Needle-Sort or the computer terminal.

MATERIALS & FACILITIES NEEDED:

A copy of the attached worksheet for each student
CIS Terminal or Needle-Sort
CIS User's Handbooks for each student
CIS Occupational, Program and School Printouts
Additional occupational information such as the Occupational Outlook Handbook and the Dictionary of Occupational Titles

PROCEDURES:

1. Give students each a copy of the accompanying worksheet and explain the general division of jobs within the business cluster (administrative, bookkeeping/accounting, and clerical). For the instructor's information, the occupations related to these groupings in CIS are as follows:
   Administrative Occupations - occupation numbers 1100-1199;
   Bookkeeping/Accounting Occupations - occupation numbers 1600-1699;
   Clerical Occupations - occupation numbers 1400-1499.
2. Have students select one occupation that interests them in each of the three groups and research the answers to the items listed to the left side of the page. CIS information is the major resource for completing the assignment. Additional resources may be made available.
3. If the VISIT file is available or the instructor can suggest people to visit for an interview about a specific job, students may be asked to complete an interview and attach their notes in response to the last item listed on the worksheet.
4. After students complete their worksheets, the class may discuss their research.

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Name_____ Career Cluster_____ I-1 page 1

Information Needed	Administrative	Bookkeeping/Accounting	Clerical
Abilities required?			
Personality traits required?			
Amount of Education required?			
Cost of Education required?			
High School courses needed?			
Where can I get training or education?			
Where would I work?			
Wages or salary (hour, week, month or year)?			
Hours of work (day, week, month)?			
Vacation (days, weeks per year)?			
Job security?			
Retirement?			
Fringe Benefits?			
Lifestyle associated with job?			
Union or license?			
Outlook?			
Opportunity for Advancement?			
Advantages of job?			
Disadvantages of job?			
Interview of person now working at this job . . . (optional)			

TITLE: TOOLS USED WITHIN SHOP CAREERS

by John Harris	Binnsmead School	Portland, Oregon
submitted by Cathy Williams	Madison High School	Portland, Oregon
revised by Naomi Stewart	CIS	Eugene, Oregon

OBJECTIVE: To make students aware of careers through the use of tools found in the shop.

TIME: 2-3 class periods

MATERIALS & FACILITIES NEEDED:

CIS Terminal and/or CIS Needle-Sort
Dictionary of Occupational Titles
Tools present in a shop

PROCEDURES:

1. Students make a list of 5 careers of interest to them which use tools.
2. For each career mentioned, they are asked to list 3 tools used in it.
3. Students are then asked to research 2 of their career choices. The student should obtain a description of the job (DESC), and training information (at least PREP; PROG and SCH if available).
4. The students could share their findings informally in class or in an oral or written report.
5. A speaker could be invited to share common methods of entry and advancement opportunities in occupations which do not have formal training programs. For example, a carpenter could share that many carpenters begin as sanders or framers and advance to finish carpenters and/or foremen after years of experience and training.

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TITLE: CAREERS AS HEALTH TECHNICIANS/TECHNOLOGISTS

by Jan Goddard — Marysville School — Portland, Oregon
submitted by Cathy Williams — Madison High School — Portland, Oregon
revised by Naomi Stewart — CIS — Eugene, Oregon

OBJECTIVE: Students identify specific entry-level skills required of a variety of health technicians and technologists by using both assisted and independent study.

TIME: 2-3 days

MATERIALS & FACILITIES NEEDED:

CIS Occupational Information Printouts
CIS Program of Study Information Printouts
CIS User's Handbooks
Occupational Outlook Handbooks
telephone books (yellow pages)
school catalogs
Speakers: teachers from local colleges, doctors, health technicians/technologists

PROCEDURES:

1. Students obtain description of Health Technicians/Technologists and Laboratory Testers (see DESC 2654 and DESC 2656 in CIS Occupational Information printouts).
2. Using the information about these occupations, students list five occupational specialties that interest them (e.g., EEG technician, respiratory therapist, medical technologist).
3. Students obtain a list of all schools in the local area with related vocational training programs (see PROG 383, PROG 385, and PROG 387 in CIS Program of Study printout).
4. Using the yellow pages, students locate 10 potential employers for the occupations they have identified as interesting to them. Some phone calls may be necessary to verify that people in the selected specialty are actually employed at the sites.
5. (Optional) Speakers may be invited to the class to speak about the occupations.
6. Students could be asked to hypothetically choose one specialty they would consider entering, select a related training program at a specific school, and select one of the potential employers, giving reasons for their choices.

NOTE: This activity may easily be adapted to explore specialties in other occupations.

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TITLE: COMMERCIAL KITCHENS

BY Janey Tinker Kelly School Portland, Oregon

OBJECTIVE: To make home economics students aware of the many types of employment available in the Food Service Cluster.

TIME: 3-4 class periods

MATERIALS & FACILITIES NEEDED:

CIS Terminal
CIS Occupational Information Printouts
CIS User's Handbooks

PROCEDURES:

(Outline succinctly methods to be utilized in exercise. State time needs, limitations, expected results, and all steps necessary to perform the exercise.)

1. Teacher should arrange a field trip to a kitchen and obtain a list of jobs completed in that kitchen.
2. Teacher will inform the class of the visit and lead a class discussion on the variety of jobs one might find, the training necessary, working conditions expected, and the questions one might ask.
3. Students will research those jobs discussed in the class session by using the CIS Occupational Information Printouts or the terminal.
4. Students will also research the various training programs by using the CIS program file.
5. Have students through observation, questioning, and interviewing on the field trip gather information, identify and compare roles and describe conditions in which home kitchens compare and contrast to kitchens engaged in quantity food preparation.
6. Students will also check their research findings through the personal contact with people in the Food Service Cluster during the field trip.

NOTE to teacher: If the CIS terminal is used in step #3, some prior instruction on its use will be necessary.

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Career Information System

NO.

TITLE:

OBJECTIVE:

TIME:

MATERIALS & FACILITIES NEEDED:

PROCEDURES:

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Career Information System NO.

TITLE:

OBJECTIVE:

TIME:

MATERIALS & FACILITIES NEEDED:

PROCEDURES:

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Career Information System

NO.

TITLE:

OBJECTIVE:

TIME:

MATERIALS & FACILITIES NEEDED:

PROCEDURES:

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